

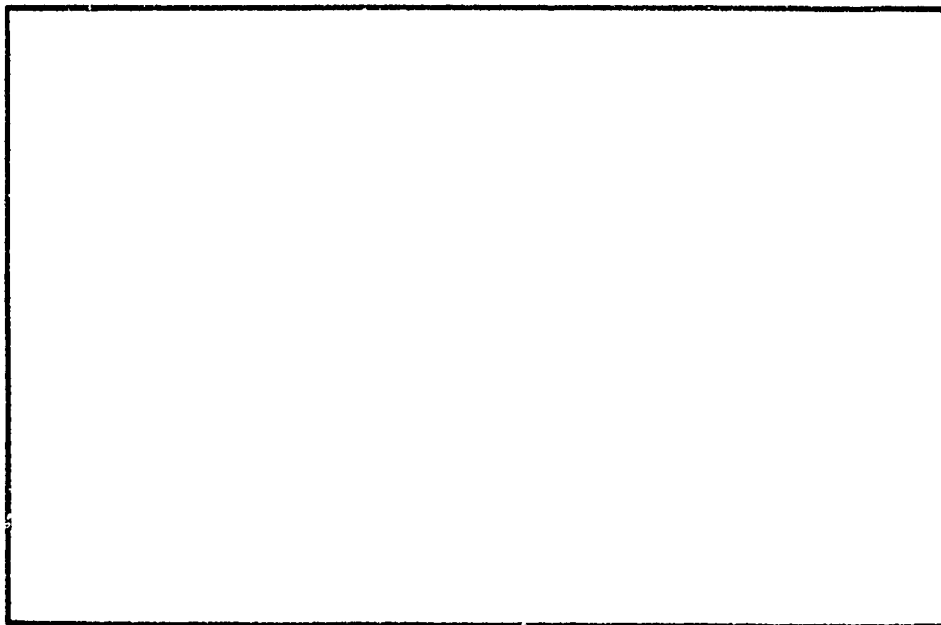
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AN EXPERIMENTAL INVESTIGATION OF THE
FLOW PAST AN IDEALIZED WING-BODY
JUNCTION: FINAL REPORT

July 1990

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and

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Report VPI-AOE-172

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) <p>→ Velocity measurements, pressure measurements and surface oil-flow visualizations, performed in the flow past an idealized wing-body junction, are presented. The junction consists of a cylindrical wing mounted normal to a flat surface on which an otherwise two-dimensional turbulent boundary is growing. The velocity measurements were made over a detailed grid using hot-wires and a three-component laser Doppler anemometer. At most locations all components of mean velocity and the Reynolds stress tensor were measured. These data clearly reveal, for the first time, the turbulence structure of the horseshoe vortex and the surrounding flow.</p> <p>The purpose of this report is to present the data in a form suitable for use by other researchers, especially those wishing to compute this flow. For discussions of the results we refer the reader to our other publications on this subject.</p>					
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A. INTRODUCTION

An appendage-body juncture flow is formed when a boundary layer on a surface encounters a protuberance or strut projecting from that surface. Upstream of the protuberance the time-averaged vorticity direction of the boundary layer is spanwise across the surface. In order to satisfy the vortex theorems of fluid dynamics, streamwise legs of this upstream vorticity stretch around the protuberance in a horseshoe shape (figure A-1) with each leg having vorticity of the opposite sense. In most practical situations the protuberance has some airfoil section and therefore imposes strong pressure gradients upon the junction flow. These greatly complicate the flow producing a region of strong flow acceleration between the leading edge and maximum thickness, and a region of adverse pressure gradient (and possible separation) towards the trailing edge. This type of three-dimensional turbulent flow occurs in many situations of engineering interest, such as in turbomachinery blade and end-wall flows, aircraft wing and body junction flows, and ship appendage and hull junction flows.

The purpose of this investigation was to study in detail the time-averaged and time-dependent properties of an idealized wing-body junction flow. It is hoped that these data and the understanding gained from them will aid the development of successful calculation methods.

The purpose of this report is to present on graphs, tables and magnetic disc the data collected. For discussion of the results presented below we refer the reader to Devenport and Simpson (1986, 1987, 1988a, 1988b, 1988c, 1990).

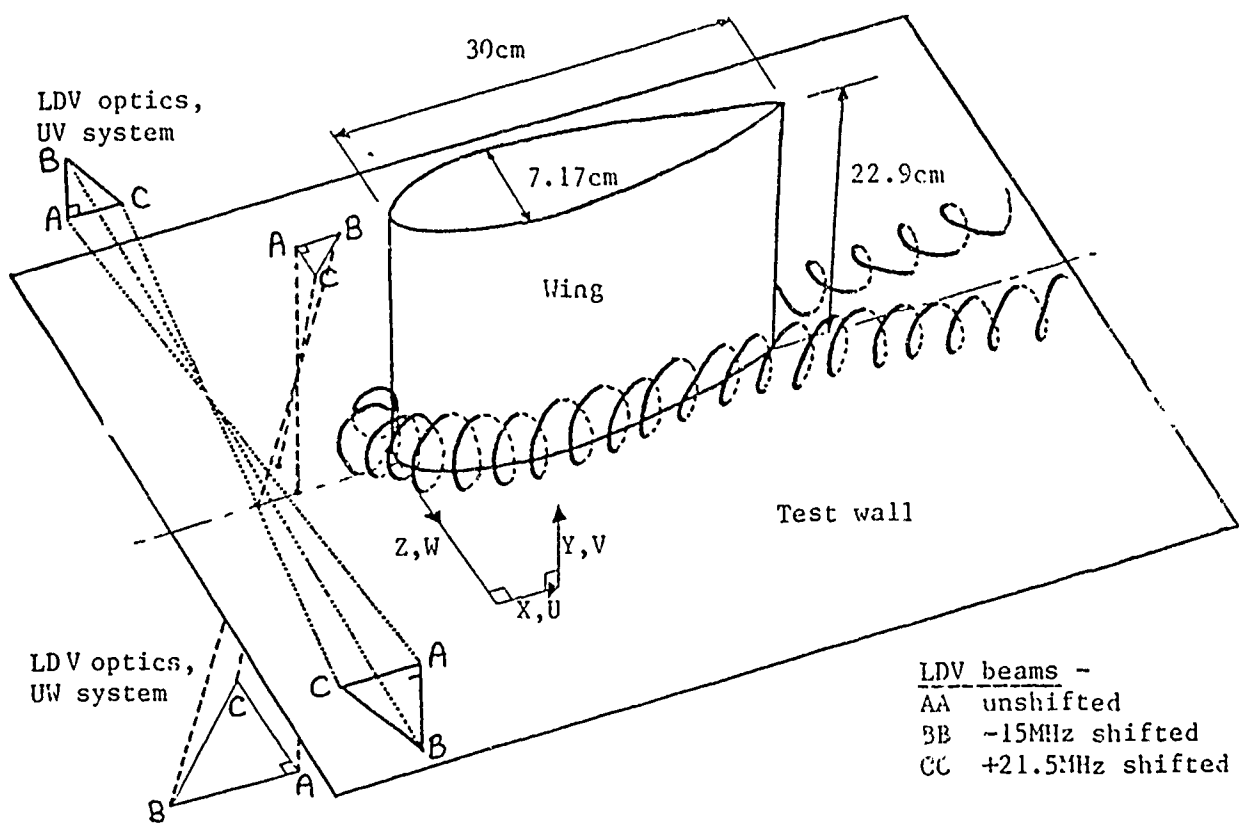


Figure A-1 Perspective view of the wing-body junction showing the 3-component LDV system.

A.1 APPARATUS

The wing

The wing shape is shown in figure A.1-1. It consists of a 3:2 elliptical nose (with its major axis aligned with the chord) joined to a NACA 0020 tail at the maximum thickness. The wing is symmetrical, has a maximum thickness of 7.17cm, a chord of 30.5cm and is 22.9cm high (figure A-1). It was fabricated at VPI on a computer-controlled milling machine. The streamlines produced by the wing in an unbounded potential flow have been computed and are shown in figure A.1-1.

The wind tunnel

The wind tunnel is of an open-circuit type and is powered by a centrifugal blower. Air from the blower is supplied to the test section after first passing through a fixed-setting damper, a plenum, a section of honeycomb to remove the mean swirl of the flow, seven screens to remove much of the turbulence intensity, and a 4:1 contraction to further reduce turbulence levels and accelerate the flow to test speed. The potential core of the flow entering the test section is uniform to within 0.5% in the spanwise direction and 1% in the vertical direction and has a turbulence intensity of 0.2% at 27m/s. This tunnel has been used in much previous research at VPI&SU and at Southern Methodist University.

Figure A.1-2 is a side view of the 8m long and 0.91m wide test section. The upper wall is made from plexiglas reinforced with aluminum channel. The glass side walls are lined internally with removable 6.4-mm thick plexiglas sheets. The lower wall is built from 19-mm thick fin-form plywood, except in a rectangular section surrounding the wing where 6.4-mm thick plexiglas is used.

Flow entering the test section is subjected to a further 1.5:1 contraction produced by the shape of the upper wall. A throat is reached 1.63 m downstream of the entrance where the test section is 254 mm in height. Downstream of the throat the upper wall is almost parallel to the flat lower wall, diverging gradually from it with distance downstream.

In the absence of the wing this arrangement produces a flow of very nearly zero streamwise pressure gradient. The streamwise variation of velocity in the potential core of the test section is plotted for three different throat velocities (U_{ref}) in figure A.1-3. These measurements were made using a single-sensor hot-wire probe with the anemometer and data acquisition system described in section E of this report. They are tabulated in tables A.1-1 through A.1-3.

The test-wall boundary layer is tripped by the blunt leading edge of the plywood floor, the height of the step from the wind-tunnel contraction to the test wall being 0.63cm. Smoke for use with a laser anemometer can be introduced into the boundary layer upstream of this trip. In the absence of the wing a zero-pressure-gradient turbulent boundary layer is produced on the test wall between locations 1 and 2 marked on figure A.1-2. The time-mean and time-dependent properties of this boundary layer over a range of Reynolds numbers were documented during previous research. They are described in detail by Ahn (1986). Briefly, this work shows the statistical and spectral properties of this boundary layer to be very like those of equilibrium boundary layers studied by previous workers. Measurements made in the boundary layer closely satisfy the two-dimensional momentum integral equation. Velocity and pressure spectra show no preferred frequencies.

The wing was mounted in the test section at zero incidence and sweep with its leading edge 1.39m downstream of the throat (figure A.1-2). As recommended by Dechow

(1977) a gap (of 37mm) was left between the upper end of the wing and the upper wall of the wind tunnel. This gap prevented the formation of a second junction vortex here which might have interfered with the flow on the test wall further downstream.

Since measurements were only made with the wing at zero angle of attack it was possible to minimize blockage-induced pressure gradients by removing the plexiglas liner from the side walls of the wind tunnel in the region surrounding the wing. This effectively increased the width of the test section by 12.7 mm from a location 330 mm upstream of the wing leading edge to another 203 mm downstream of its trailing edge. (Note that the abrupt corners at the edges of the remaining liner were faired over using adhesive tape.) These distances were chosen so that the side walls of the wind tunnel would, very approximately, follow a streamline produced by the wing in unbounded flow. The position of this streamline was estimated assuming two-dimensional potential flow.

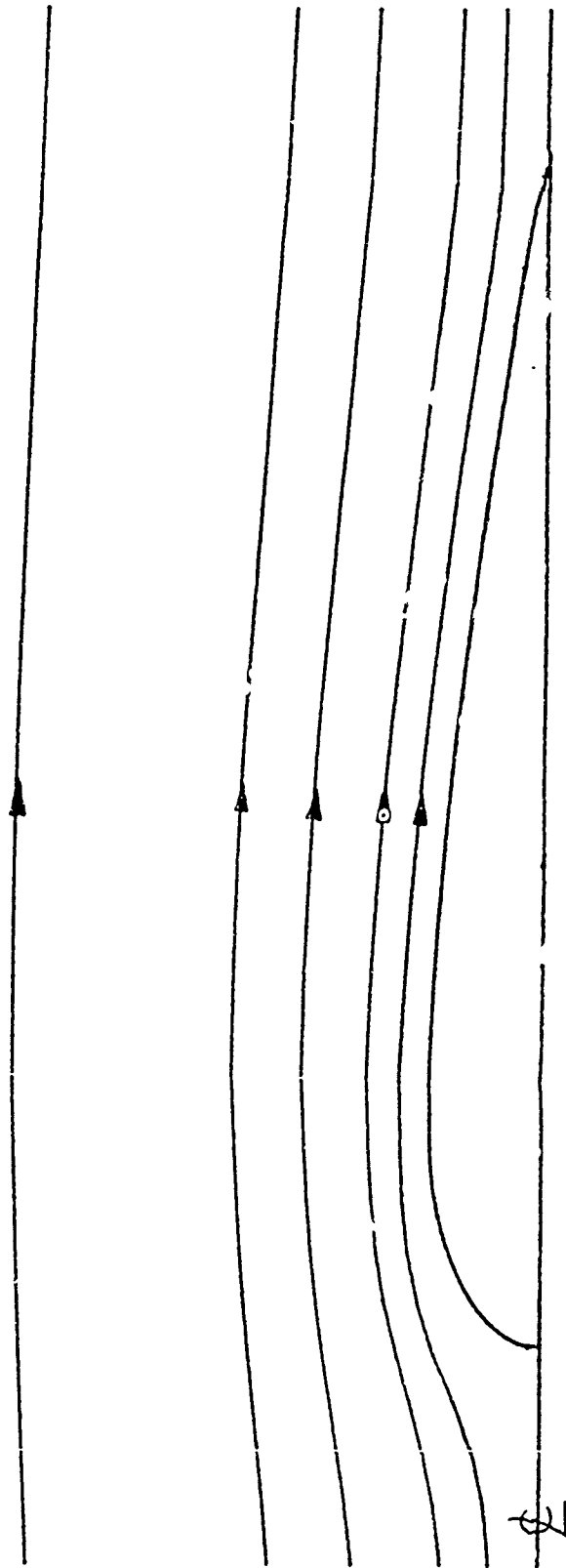


Figure A.1-1 Streamlines produced by a two-dimensional wing with a 1.5 to 1 elliptical nose and a NACA 0020 tail in an unbounded potential flow.

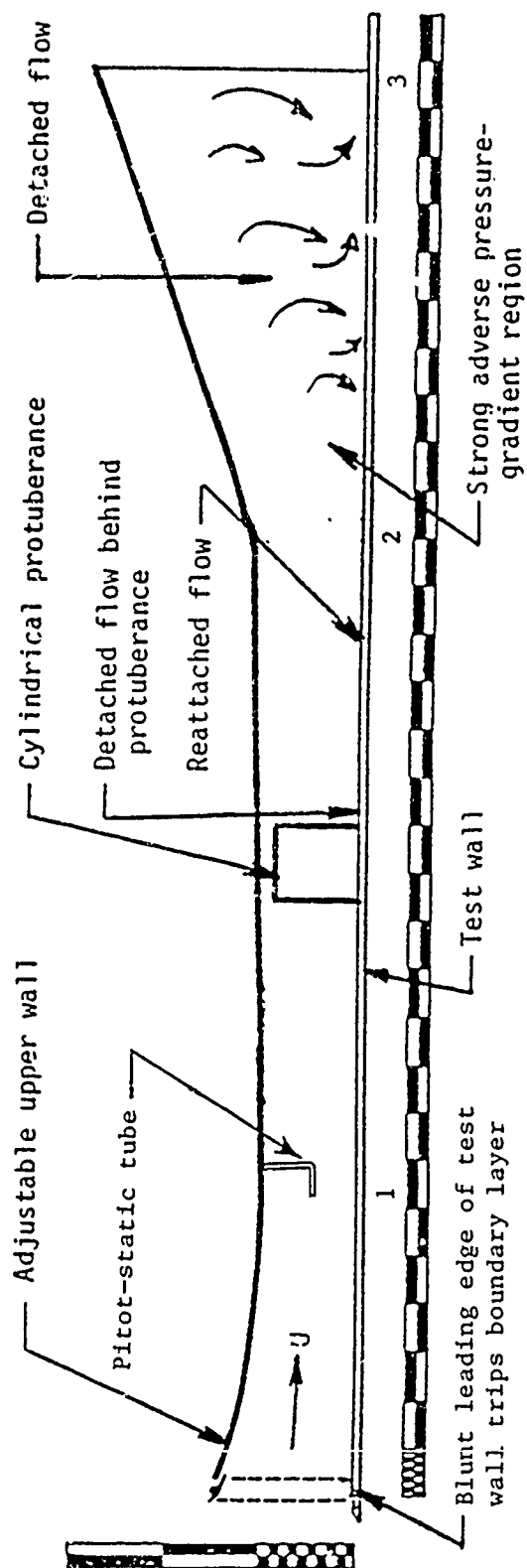


Figure A.1-2 Sideview schematic of the wind-tunnel test section for the wing-body junction experiments. Major divisions on scales: 25.4cm.

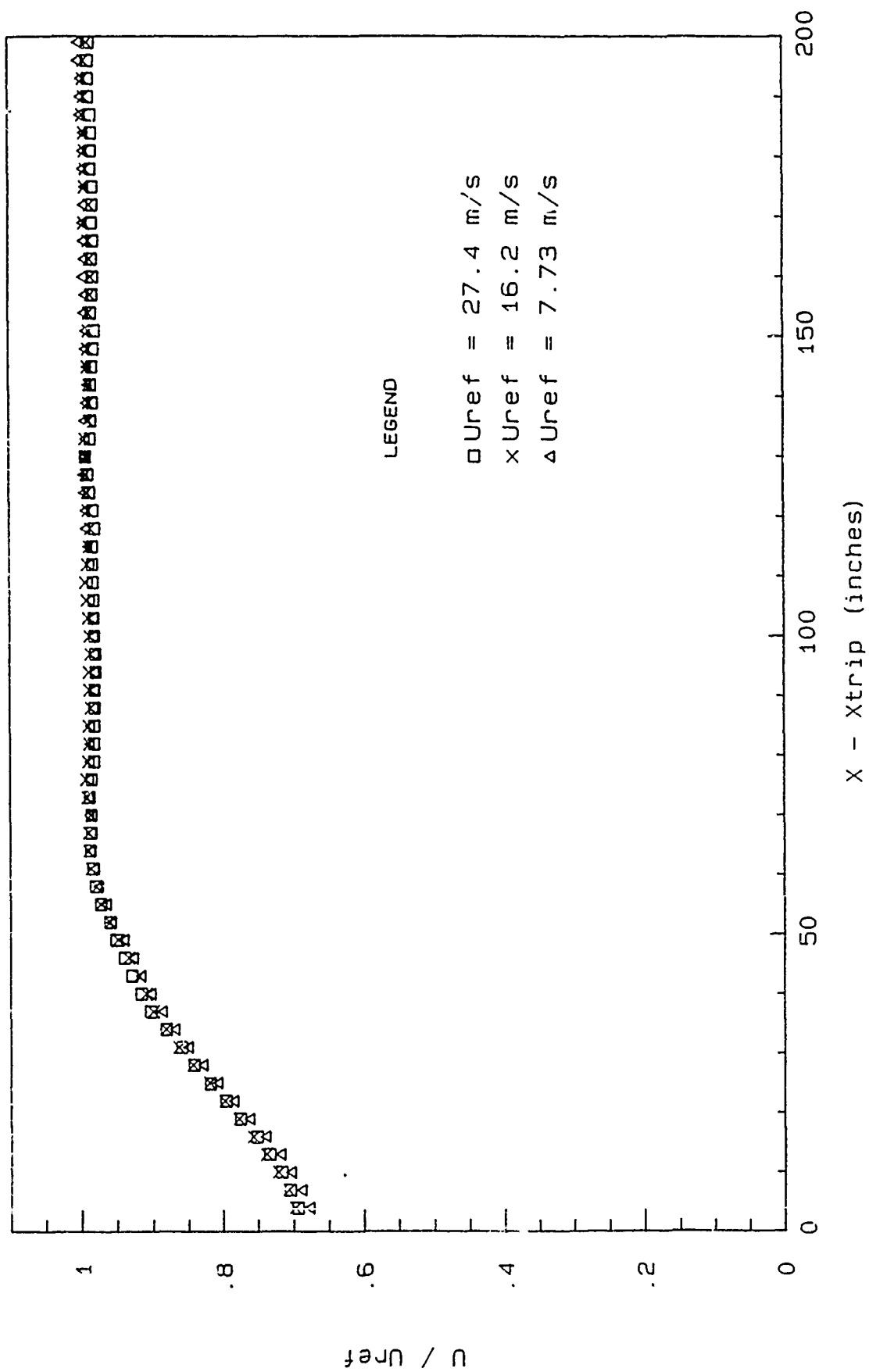


Figure A.1-3 Streamwise variation of velocity in the potential core of the test section in the absence of the wing.

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Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 21.1

density (kilograms per meter cubed) = 1.127356

viscosity (meters squared per second) = 1.512435E-05

Atmospheric pressure (Pascals) = 95200

Velocity of undisturbed free stream (Uref, in m/s) = 27.46237

Note: X1 is measured from the leading edge of the test wall

X1/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
1.4164E+00	1.7705E+00	0.0000E+00	6.9373E-01	1.5392E-05	2.1476E-08
2.4788E+00	1.7705E+00	0.0000E+00	7.0498E-01	1.6667E-05	2.7601E-09
3.5411E+00	1.7705E+00	0.0000E+00	7.1707E-01	1.4948E-05	2.4372E-08
4.6034E+00	1.7705E+00	0.0000E+00	7.3397E-01	1.6470E-05	2.4677E-03
5.6657E+00	1.7705E+00	0.0000E+00	7.5165E-01	1.6226E-05	2.7007E-08
6.7280E+00	1.7705E+00	0.0000E+00	7.7473E-01	1.7415E-05	2.3913E-09
7.7904E+00	1.7705E+00	0.0000E+00	7.9536E-01	1.8115E-05	2.7124E-08
8.8084E+00	1.7705E+00	0.0000E+00	8.1813E-01	2.2780E-05	3.2515E-08
9.9150E+00	1.7705E+00	0.0000E+00	8.4161E-01	1.9592E-05	2.6100E-09
1.0977E+01	1.7705E+00	0.0000E+00	8.5935E-01	2.6528E-05	2.2065E-09
1.2040E+01	1.7705E+00	0.0000E+00	8.8145E-01	2.6230E-05	2.3775E-08
1.3102E+01	1.7705E+00	0.0000E+00	9.0252E-01	2.2484E-05	3.5472E-08
1.4164E+01	1.7705E+00	0.0000E+00	9.1563E-01	2.1674E-05	4.6860E-08
1.5227E+01	1.7705E+00	0.0000E+00	9.2863E-01	2.3712E-05	3.3662E-03
1.6289E+01	1.7705E+00	0.0000E+00	9.3856E-01	2.5269E-05	4.1930E-06
1.7351E+01	1.7705E+00	0.0000E+00	9.4999E-01	2.7932E-05	4.7185E-08
1.8414E+01	1.7705E+00	0.0000E+00	9.5876E-01	2.5465E-05	4.0394E-03
1.9475E+01	1.7705E+00	0.0000E+00	9.7167E-01	2.5835E-05	3.5102E-08
2.0536E+01	1.7705E+00	0.0000E+00	9.7937E-01	2.7732E-05	4.8590E-08
2.1601E+01	1.7705E+00	0.0000E+00	9.8258E-01	2.5815E-05	4.4155E-09
2.2663E+01	1.7705E+00	0.0000E+00	9.8612E-01	2.7036E-05	3.9365E-08
2.3725E+01	1.7705E+00	0.0000E+00	9.8459E-01	2.7323E-05	5.3255E-08
2.4788E+01	1.7705E+00	0.0000E+00	9.8421E-01	2.5593E-05	3.6627E-09
2.5850E+01	1.7705E+00	0.0000E+00	9.8660E-01	2.7799E-05	5.5417E-08
2.6912E+01	1.7705E+00	0.0000E+00	9.8392E-01	2.5345E-05	4.9334E-09
2.7975E+01	1.7705E+00	0.0000E+00	9.8043E-01	2.7705E-05	3.2493E-08
2.9037E+01	1.7705E+00	0.0000E+00	9.8048E-01	2.6473E-05	5.1821E-08
3.0099E+01	1.7705E+00	0.0000E+00	9.7943E-01	2.6170E-05	5.3150E-09
3.1161E+01	1.7705E+00	0.0000E+00	9.7676E-01	2.6531E-05	5.1203E-08
3.2224E+01	1.7705E+00	0.0000E+00	9.7895E-01	2.6424E-05	3.3342E-08
3.3286E+01	1.7705E+00	0.0000E+00	9.7751E-01	2.7428E-05	5.6155E-09
3.4348E+01	1.7705E+00	0.0000E+00	9.7780E-01	2.9504E-05	5.7553E-09
3.5411E+01	1.7705E+00	0.0000E+00	9.7914E-01	2.6543E-05	4.6105E-08
3.6473E+01	1.7705E+00	0.0000E+00	9.8036E-01	2.8489E-05	3.6933E-08
3.7535E+01	1.7705E+00	0.0000E+00	9.8086E-01	2.6893E-05	5.1075E-08
3.8598E+01	1.7705E+00	0.0000E+00	9.8195E-01	2.8286E-05	4.2576E-08
3.9660E+01	1.7705E+00	0.0000E+00	9.8191E-01	2.7420E-05	4.5595E-09
4.0722E+01	1.7705E+00	0.0000E+00	9.8191E-01	2.4210E-05	5.4235E-09
4.1785E+01	1.7705E+00	0.0000E+00	9.7847E-01	2.7653E-05	5.5341E-09
4.2847E+01	1.7705E+00	0.0000E+00	9.8105E-01	2.7170E-05	4.5370E-08
4.3909E+01	1.7705E+00	0.0000E+00	9.8468E-01	2.7682E-05	4.2238E-08
4.4972E+01	1.7705E+00	0.0000E+00	9.8775E-01	2.9841E-05	4.5595E-09
4.6034E+01	1.7705E+00	0.0000E+00	9.9158E-01	2.7955E-05	4.7191E-08
4.7096E+01	1.7705E+00	0.0000E+00	9.8459E-01	2.5175E-05	3.9567E-09
4.8158E+01	1.7705E+00	0.0000E+00	9.8354E-01	2.6529E-05	4.9515E-08
4.9221E+01	1.7705E+00	0.0000E+00	9.8124E-01	2.1515E-05	1.9974E-08
5.0283E+01	1.7705E+00	0.0000E+00	9.8297E-01	2.9660E-05	5.6305E-08
5.1346E+01	1.7705E+00	0.0000E+00	9.8134E-01	2.5422E-05	7.9125E-09
5.2408E+01	1.7705E+00	0.0000E+00	9.7904E-01	2.7020E-05	6.6335E-09
5.3470E+01	1.7705E+00	0.0000E+00	9.7770E-01	2.6345E-05	5.1113E-08
5.4533E+01	1.7705E+00	0.0000E+00	9.8220E-01	2.5873E-05	4.6943E-08
5.5595E+01	1.7705E+00	0.0000E+00	9.8038E-01	2.5577E-05	4.8515E-09
5.6657E+01	1.7705E+00	0.0000E+00	9.7923E-01	2.7542E-05	5.0132E-08
5.7720E+01	1.7705E+00	0.0000E+00	9.8134E-01	3.0432E-05	5.0550E-08
5.8782E+01	1.7705E+00	0.0000E+00	9.7952E-01	2.6390E-05	4.5393E-08
5.9844E+01	1.7705E+00	0.0000E+00	9.8115E-01	2.9042E-05	5.2801E-08
6.0907E+01	1.7705E+00	0.0000E+00	9.8043E-01	2.8405E-05	4.7057E-09
6.1969E+01	1.7705E+00	0.0000E+00	9.8157E-01	2.6231E-05	4.4965E-08
6.3031E+01	1.7705E+00	0.0000E+00	9.8278E-01	2.7652E-05	4.7624E-09
6.4093E+01	1.7705E+00	0.0000E+00	9.8201E-01	2.8146E-05	3.7288E-08
6.5156E+01	1.7705E+00	0.0000E+00	9.8172E-01	2.5177E-05	4.8393E-09
6.6218E+01	1.7705E+00	0.0000E+00	9.8230E-01	2.9304E-05	3.8970E-09
6.7280E+01	1.7705E+00	0.0000E+00	9.8593E-01	2.6870E-05	4.1143E-08
6.8343E+01	1.7705E+00	0.0000E+00	9.8535E-01	2.6622E-05	4.4117E-08
6.9405E+01	1.7705E+00	0.0000E+00	9.8545E-01	2.7547E-05	3.4417E-08
7.0467E+01	1.7705E+00	0.0000E+00	9.8421E-01	2.7579E-05	4.0863E-08

Table A.1-1 Variation of velocity in the potential core of the test section in the absence of the wing, Uref = 27.5m/s.

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Velocity measurements obtained using the single-sensor hot wire probe
 Flow temperature (degrees centigrade) = 21.1
 density (kilograms per meter cubed) = 1.125384
 viscosity (meters squared per second) = 1.515404E-05
 Atmospheric pressure (Pascals) = 95025
 Velocity of undisturbed free stream (Uref. in m/s) = 16.26451

Note: X1 is measured from the leading edge of the test wall

X1/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
1.4164E+00	1.7705E+00	0.0000E+00	6.9747E-01	4.7120E-05	5.5290E-08
2.4798E+00	1.7705E+00	0.0000E+00	7.0694E-01	5.1199E-05	7.9250E-08
3.5411E+00	1.7705E+00	0.0000E+00	7.2132E-01	5.0585E-05	6.3017E-08
4.6034E+00	1.7705E+00	0.0000E+00	7.3815E-01	5.5073E-05	9.8420E-08
5.6657E+00	1.7705E+00	0.0000E+00	7.5669E-01	5.5147E-05	5.3220E-08
6.7280E+00	1.7705E+00	0.0000E+00	7.7681E-01	5.4522E-05	9.0450E-08
7.7904E+00	1.7705E+00	0.0000E+00	7.9664E-01	5.9027E-05	9.3629E-08
8.8527E+00	1.7705E+00	0.0000E+00	8.1888E-01	5.7810E-05	5.2880E-08
9.9150E+00	1.7705E+00	0.0000E+00	8.4292E-01	6.2646E-05	9.1426E-08
1.0977E+01	1.7705E+00	0.0000E+00	8.6287E-01	6.7545E-05	1.1486E-07
1.2040E+01	1.7705E+00	0.0000E+00	8.8103E-01	6.6606E-05	6.3955E-08
1.3102E+01	1.7705E+00	0.0000E+00	8.9883E-01	6.7313E-05	4.5480E-08
1.4164E+01	1.7705E+00	0.0000E+00	9.0862E-01	7.1856E-05	6.721E-08
1.5227E+01	1.7705E+00	0.0000E+00	9.1E15E-01	7.4245E-05	1.0034E-07
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2.1601E+01	1.7705E+00	0.0000E+00	9.8479E-01	9.7079E-05	1.3063E-07
2.2663E+01	1.7705E+00	0.0000E+00	9.8835E-01	9.0325E-05	9.5663E-08
2.3725E+01	1.7705E+00	0.0000E+00	9.8827E-01	9.0295E-05	7.3423E-08
2.4788E+01	1.7705E+00	0.0000E+00	9.8490E-01	8.6411E-05	1.1465E-07
2.5850E+01	1.7705E+00	0.0000E+00	9.8985E-01	8.4122E-05	1.1371E-07
2.6912E+01	1.7705E+00	0.0000E+00	9.9149E-01	8.6672E-05	1.5739E-07
2.7975E+01	1.7705E+00	0.0000E+00	9.8383E-01	8.1452E-05	1.0746E-07
2.9037E+01	1.7705E+00	0.0000E+00	9.3721E-01	8.5060E-05	9.5642E-08
3.0099E+01	1.7705E+00	0.0000E+00	9.8766E-01	8.2889E-05	1.1732E-07
3.1161E+01	1.7705E+00	0.0000E+00	9.8426E-01	7.0920E-05	1.5689E-07
3.2224E+01	1.7705E+00	0.0000E+00	9.8664E-01	8.2494E-05	7.2347E-08
3.3286E+01	1.7705E+00	0.0000E+00	9.8731E-01	8.4145E-05	1.3865E-07
3.4348E+01	1.7705E+00	0.0000E+00	9.849E-01	8.2066E-05	1.0709E-07
3.5411E+01	1.7705E+00	0.0000E+00	9.8638E-01	7.7033E-05	1.0521E-07
3.6473E+01	1.7705E+00	0.0000E+00	9.8836E-01	7.8337E-05	1.3796E-07
3.7535E+01	1.7705E+00	0.0000E+00	9.9059E-01	8.2734E-05	1.3274E-07
3.8598E+01	1.7705E+00	0.0000E+00	9.9135E-01	3.4507E-05	7.7646E-08
3.9660E+01	1.7705E+00	0.0000E+00	9.8922E-01	9.2329E-05	1.5144E-07
4.0722E+01	1.7705E+00	0.0000E+00	9.8647E-01	7.6196E-05	1.2740E-07
4.1785E+01	1.7705E+00	0.0000E+00	9.8489E-01	7.4970E-05	1.4872E-07
4.2847E+01	1.7705E+00	0.0000E+00	9.8339E-01	8.6953E-05	1.2028E-07
4.3909E+01	1.7705E+00	0.0000E+00	9.9667E-01	7.7137E-05	1.4661E-07
4.4972E+01	1.7705E+00	0.0000E+00	9.9079E-01	9.1497E-05	1.7419E-07
4.6034E+01	1.7705E+00	0.0000E+00	9.9774E-01	7.7365E-05	1.5151E-07
4.7096E+01	1.7705E+00	0.0000E+00	9.9212E-01	8.0116E-05	9.5819E-08
4.8158E+01	1.7705E+00	0.0000E+00	9.6633E-01	8.0776E-05	1.3655E-07
4.9221E+01	1.7705E+00	0.0000E+00	9.8701E-01	8.3349E-05	1.0872E-07
5.0283E+01	1.7705E+00	0.0000E+00	9.8621E-01	7.0275E-05	1.1684E-07
5.1346E+01	1.7705E+00	0.0000E+00	9.8796E-01	8.0718E-05	1.4160E-07
5.2408E+01	1.7705E+00	0.0000E+00	9.8741E-01	8.0287E-05	7.5774E-08
5.3470E+01	1.7705E+00	0.0000E+00	9.8632E-01	7.9530E-05	1.0221E-07
5.4533E+01	1.7705E+00	0.0000E+00	9.8547E-01	8.1641E-05	1.5609E-07
5.5595E+01	1.7705E+00	0.0000E+00	9.8295E-01	7.9315E-05	1.4842E-07
5.6657E+01	1.7705E+00	0.0000E+00	9.8215E-01	3.1013E-05	1.7645E-07
5.7720E+01	1.7705E+00	0.0000E+00	9.8417E-01	7.8570E-05	1.3416E-07
5.8782E+01	1.7705E+00	0.0000E+00	9.8420E-01	8.0221E-05	1.7585E-07
5.9844E+01	1.7705E+00	0.0000E+00	9.9220E-01	8.1867E-05	1.1210E-07
6.0907E+01	1.7705E+00	0.0000E+00	9.8458E-01	8.1651E-05	1.5747E-07
6.1969E+01	1.7705E+00	0.0000E+00	9.9110E-01	8.1281E-05	1.3852E-07
6.3031E+01	1.7705E+00	0.0000E+00	9.9094E-01	5.2613E-05	6.8935E-08
6.4093E+01	1.7705E+00	0.0000E+00	9.9068E-01	9.4273E-05	2.0793E-07
6.5156E+01	1.7705E+00	0.0000E+00	9.9184E-01	7.9983E-05	1.2646E-07
6.6218E+01	1.7705E+00	0.0000E+00	9.9447E-01	8.4596E-05	1.3800E-07
6.7280E+01	1.7705E+00	0.0000E+00	9.9218E-01	8.1172E-05	7.4719E-08
6.8343E+01	1.7705E+00	0.0000E+00	9.9289E-01	7.3361E-05	2.0563E-07
6.9405E+01	1.7705E+00	0.0000E+00	9.9222E-01	8.2527E-05	1.5705E-07
7.0467E+01	1.7705E+00	0.0000E+00	9.8711E-01	3.2424E-05	8.4537E-08

Table A.1-2 Variation of velocity in the potential core of the test section in the absence of the wing, Uref = 16.3m/s.

File E450125.FEB

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22.5

density (kilograms per meter cubed) = 1.114365

viscosity (meters squared per second) = 1.675464E-05

Atmospheric pressure (Pascals) = 64595

Velocity of undisturbed free stream (Uref, in m/s) = 7.714312

Note: X1 is measured from the leading edge of the test wall

X1/T	Y/T	Z/T	U/Uref	U2/Uref^2	U/Uref
1.4164E+00	1.7705E+00	0.0000E+00	6.7547E-01	3.4443E-05	2.8010E-07
2.4789E+00	1.7705E+00	0.0000E+00	6.8650E-01	8.7555E-05	1.7325E-07
3.5411E+00	1.7705E+00	0.0000E+00	7.0157E-01	7.7893E-05	1.1511E-07
4.6034E+00	1.7705E+00	0.0000E+00	7.1576E-01	7.9107E-05	2.5281E-07
5.6657E+00	1.7705E+00	0.0000E+00	7.3774E-01	1.7002E-04	1.7213E-07
6.7280E+00	1.7705E+00	0.0000E+00	7.5945E-01	9.9767E-05	2.4835E-07
7.7904E+00	1.7705E+00	0.0000E+00	7.8253E-01	9.7519E-05	1.9635E-07
8.8527E+00	1.7705E+00	0.0000E+00	8.0513E-01	1.0312E-04	2.9292E-07
9.9150E+00	1.7705E+00	0.0000E+00	8.2696E-01	1.1813E-04	1.7143E-07
1.0977E+01	1.7705E+00	0.0000E+00	8.4832E-01	1.4002E-04	2.7771E-07
1.2040E+01	1.7705E+00	0.0000E+00	8.5710E-01	1.1045E-04	2.6992E-07
1.3102E+01	1.7705E+00	0.0000E+00	8.9457E-01	1.5558E-04	2.3435E-07
1.4164E+01	1.7705E+00	0.0000E+00	9.0016E-01	1.1017E-04	2.8265E-07
1.5227E+01	1.7705E+00	0.0000E+00	9.1420E-01	1.1498E-04	2.7442E-07
1.6289E+01	1.7705E+00	0.0000E+00	9.2474E-01	1.1211E-04	2.7177E-07
1.7351E+01	1.7705E+00	0.0000E+00	9.3736E-01	1.1776E-04	4.0672E-07
1.8414E+01	1.7705E+00	0.0000E+00	9.5509E-01	1.1659E-04	2.5910E-07
1.9476E+01	1.7705E+00	0.0000E+00	9.524E-01	1.2144E-04	2.5030E-07
2.0538E+01	1.7705E+00	0.0000E+00	9.7237E-01	1.3422E-04	2.9272E-07
2.1601E+01	1.7705E+00	0.0000E+00	9.7755E-01	1.2175E-04	2.1655E-07
2.2663E+01	1.7705E+00	0.0000E+00	9.8451E-01	1.2165E-04	2.9435E-07
2.3725E+01	1.7705E+00	0.0000E+00	9.859E-01	1.1035E-04	2.8035E-07
2.4788E+01	1.7705E+00	0.0000E+00	9.852E-01	1.1791E-04	2.8155E-07
2.5850E+01	1.7705E+00	0.0000E+00	9.8515E-01	1.1094E-04	2.8565E-07
2.6912E+01	1.7705E+00	0.0000E+00	9.8553E-01	1.1095E-04	2.8535E-07
2.7975E+01	1.7705E+00	0.0000E+00	9.8487E-01	1.1016E-04	2.8535E-07
2.9037E+01	1.7705E+00	0.0000E+00	9.8497E-01	1.1027E-04	2.8535E-07
3.0099E+01	1.7705E+00	0.0000E+00	9.8375E-01	1.1065E-04	2.8535E-07
3.1161E+01	1.7705E+00	0.0000E+00	9.8555E-01	1.1054E-04	2.8535E-07
3.2224E+01	1.7705E+00	0.0000E+00	9.7754E-01	1.1079E-04	2.8535E-07
3.3286E+01	1.7705E+00	0.0000E+00	9.7775E-01	1.1077E-04	2.8535E-07
3.4348E+01	1.7705E+00	0.0000E+00	9.7811E-01	1.1584E-04	2.8535E-07
3.5411E+01	1.7705E+00	0.0000E+00	9.7808E-01	1.1701E-04	2.8535E-07
3.6473E+01	1.7705E+00	0.0000E+00	9.7941E-01	1.1332E-04	2.8535E-07
3.7535E+01	1.7705E+00	0.0000E+00	9.8335E-01	1.1684E-04	2.8535E-07
3.8598E+01	1.7705E+00	0.0000E+00	9.8553E-01	1.1569E-04	2.8535E-07
3.9660E+01	1.7705E+00	0.0000E+00	9.8344E-01	1.1528E-04	2.8535E-07
4.0722E+01	1.7705E+00	0.0000E+00	9.8623E-01	1.1577E-04	2.8535E-07
4.1785E+01	1.7705E+00	0.0000E+00	9.8704E-01	1.1635E-04	2.8535E-07
4.2847E+01	1.7705E+00	0.0000E+00	9.9071E-01	1.1724E-04	2.8535E-07
4.3909E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1777E-04	2.8535E-07
4.4971E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
4.6034E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
4.7096E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
4.8158E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
4.9220E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.0282E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.1345E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.2407E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.3469E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.4531E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.5593E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.6655E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.7717E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.8779E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
5.9841E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.0903E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.1965E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.3027E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.4089E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.5151E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.6213E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.7275E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.8337E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
6.9399E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07
7.0461E+01	1.7705E+00	0.0000E+00	9.9175E-01	1.1764E-04	2.8535E-07

Table A.1-3 Variation of velocity in the potential core of the test section in the absence of the wing, Uref = 7.7m/s.

A.2 COORDINATE SYSTEM, NOMINAL TEST CONDITIONS

Results will be presented using the right-handed coordinate system (X,Y,Z) and (U,V,W) defined in figure A-1. Distances have been non-dimensionalized on the maximum thickness of the wing T (or t) equal to 71.7mm. Velocities have been non-dimensionalized on U_{ref} the approach main-stream velocity measured using a pitot-static tube mounted in the wind tunnel throat (see figure A.1-2). Measurements have been made at three different Reynolds numbers, of nominal values 2500, 4500 and 6700, based on U_{ref} and the momentum thickness of the approach boundary layer $2.15T$ upstream of the wing leading edge. For $Re_\theta = 6700$ the total boundary layer thickness (δ_{995}) here was 36mm. δ_{995} was estimated to be 40mm at $Re_\theta = 4500$ and 46mm at $Re_\theta = 2500$.

A.3 ORGANIZATION OF RESULTS

The rest of this report is divided into a number of sections. Section B deals with preliminary measurements made in the approach flow far upstream of the wing and in the boundary-layer on the wing surface. The rest of the results are presented in sections C through F, each section dealing with a different measurement technique. Where necessary subsections are used to distinguish measurements made in different regions.

Each section begins with a description of the measurement technique, estimates of uncertainty and any bias error known or suspected to be present. Uncertainties were calculated using the method of Kline and McClintock (1953) for 95% confidence limits. Results are then presented using diagrams and tables (where relevant).

The tabulated data are also available on floppy disc. The 1.4 Mbyte 3.5" disc, written on an IBM PS2 computer, contains the tabulated data exactly as it appears in this report.

This disc is organized into 3 subdirectories, one each for the static-pressure data (subdirectory CP), single-hot-wire data (subdirectory HW) and laser-anemometer data (subdirectory LDV). Each table is stored in a file with the name stated in the top left-hand corner of the table.

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B. PRELIMINARY MEASUREMENTS

B.1 THE BOUNDARY LAYER ON THE WING

The flow over the surface of the wing, outside the immediate influence of the test wall boundary layer, is of special interest for a number of reasons. First, this boundary layer must be tripped to avoid any unsteadiness or non-uniformity that might result from natural transition. Second, the symmetry of this boundary layer is a good indicator of the symmetry of the flow as a whole. Third, two-dimensionality of this boundary layer is an indication that the flow on the test wall is independent of the height of the wing.

The boundary layer on the wing has been investigated without a trip and using three different trips. The first of these trips consisted of a 6.35-mm wide strip of 220 grade sandpaper attached to the wing surface with its downstream end 28.2mm downstream of the leading edge of the wing, as measured in the X direction. The second trip was a similar strip of coarser 120 grade sandpaper. The third consisted of a 1-mm diameter wire mounted 10 mm upstream of the maximum thickness of the wing. This diameter was chosen according to criteria stated by Schlichting (1968) to ensure that the wire would be fully effective at the lowest speeds of interest.

To examine the effects of these trips hot-wire measurements were made in the wake of the wing 1mm downstream of its trailing edge. The flow here was expected to closely resemble the boundary layer at the trailing edge. A TSI single-sensor hot wire probe (type 1210-T1.5) was used, operated using equipment described in section E of this report. With the sensor parallel to the trailing edge of the wing spanwise traverses were made at several heights from the test wall for each case. All these data were taken at the highest test Reynolds number, $Re_\theta = 6700$, corresponding to a nominal undisturbed free-stream velocity

of 27 m/s. The data are tabulated in tables B.1-1 through B.1-20.

Figures B.1-1 and B.1-2 compare profiles of mean velocity U/U_{ref} and streamwise turbulence normal stress u^2/U_{ref}^2 measured at the mid height of the wing for the four different cases. Differences between the cases in the velocity and stress measured immediately downstream of the trailing edge are a result of the 0.5mm uncertainty in the positioning of the hot-wire probe in the streamwise (X) direction. Uncertainties in absolute positioning in the Y and Z directions are also about 0.5mm. However, uncertainty in the relative Z-location of points in the same profile is less than 0.05mm.

The profiles appear to show, as would be expected, that the boundary layer leaving the wing is at its thinnest with no trip. The close similarity between these data and those measured with the 220-grade sandpaper suggests that this trip was ineffective. Both the 120-grade sandpaper and the wire increased the boundary layer thickness at the trailing edge, the latter by almost a factor of two.

Oil-flow visualizations were performed on the surface of the wing to help interpret these results. Those performed without a trip and using the 220-grade sandpaper showed the presence of a separation bubble with separation occurring just upstream of the maximum thickness of the wing. This bubble was 23mm long at the mid-height of the wing but is thought to have been very thin because its presence was not apparent in the pressure distribution on the wing surface. It seems likely that this bubble resulted from the separation of a laminar boundary layer and was the cause of transition in these two cases. Oil-flow visualizations performed with the 120-grade sandpaper showed no regions of separation. Those performed with the wire showed the presence of a separation bubble immediately downstream of this trip, 9mm long at the mid height of the wing.

Figures B.1-3 through B.1-18 compare, for each case, profiles measured on either side of the wing. Figures B.1-19 through B.1-26 compare profiles measured at different heights. These data show that in all the cases the wing wake was closely symmetrical. They also show, in all cases, very little change in the flow properties with height around the mid-height of the wing, between $Y/T = 1.06$ and 2.12 . This suggests that the time-averaged structure of the boundary layer on the wing surface was closely two-dimensional here.

All the following measurements (except some laser anemometer measurements) were taken with the wire trip. Laser anemometer measurements in planes 5, 8 and 10 (spanwise planes at and downstream of the wing maximum thickness) were taken with the 120-grade sandpaper trip.

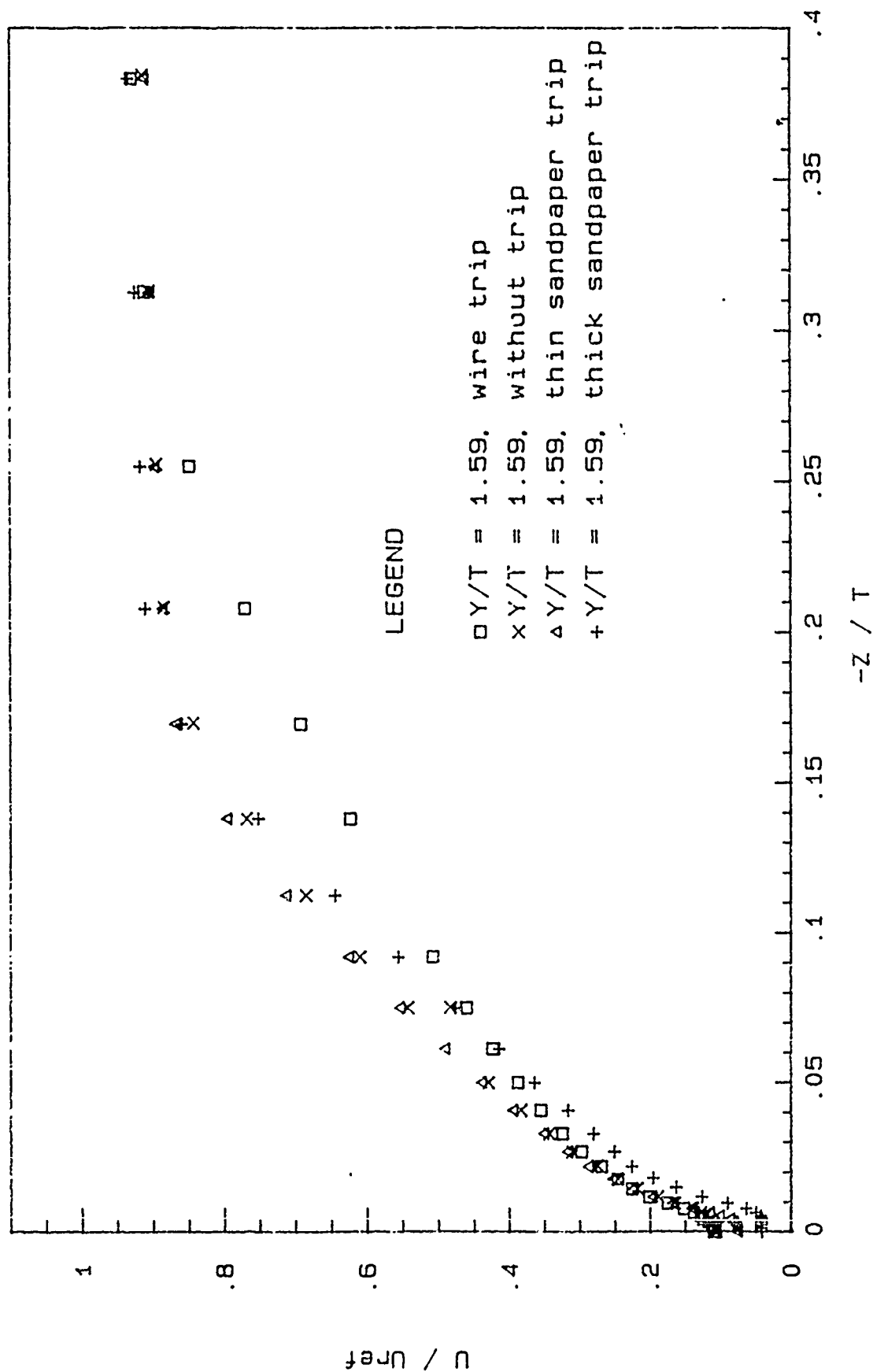


Figure B.1-1 Comparison of mean-velocity profiles measured 1mm downstream of the trailing edge of the wing with different boundary-layer trips, $Re_{\theta} = 6700$.

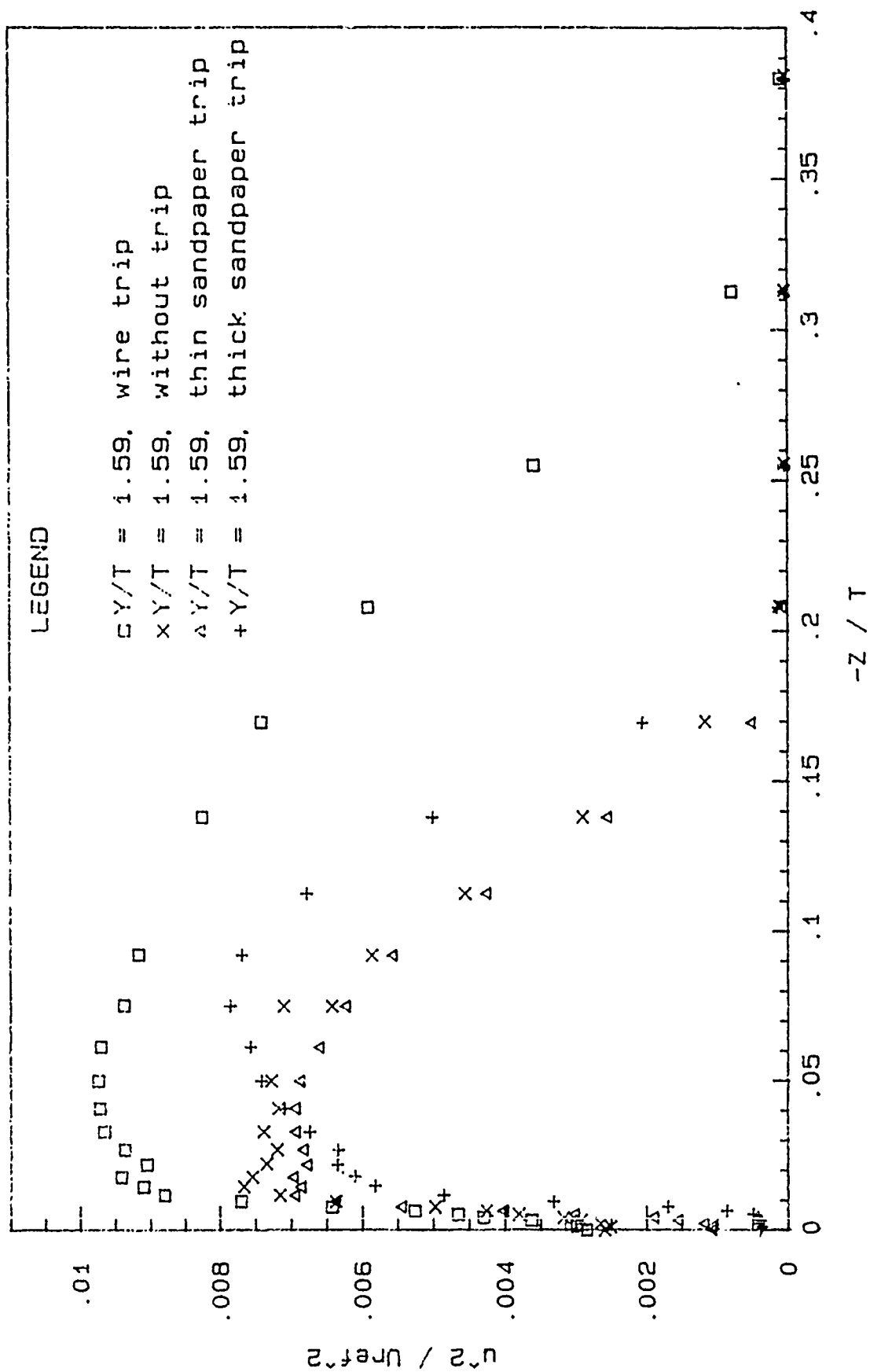


Figure B.1-2 Comparison of profiles of $\overline{u^2} / U_{ref}^2$ measured 1mm downstream of the trailing edge of the wing with different boundary layer trips, $Re_\theta = 6700$.

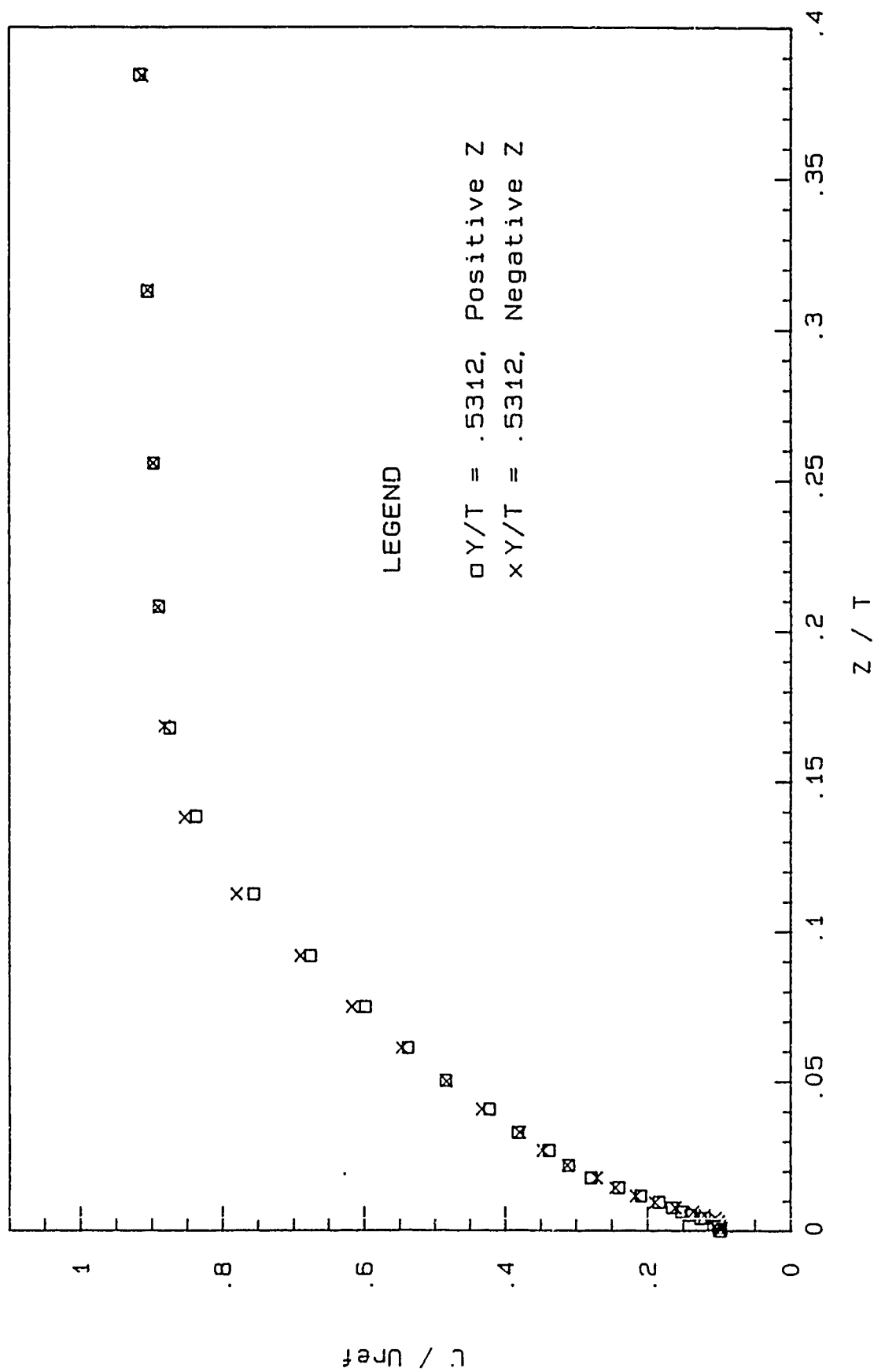


Figure B.1-3 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with no boundary layer trip, $Re_\theta = 6700$.

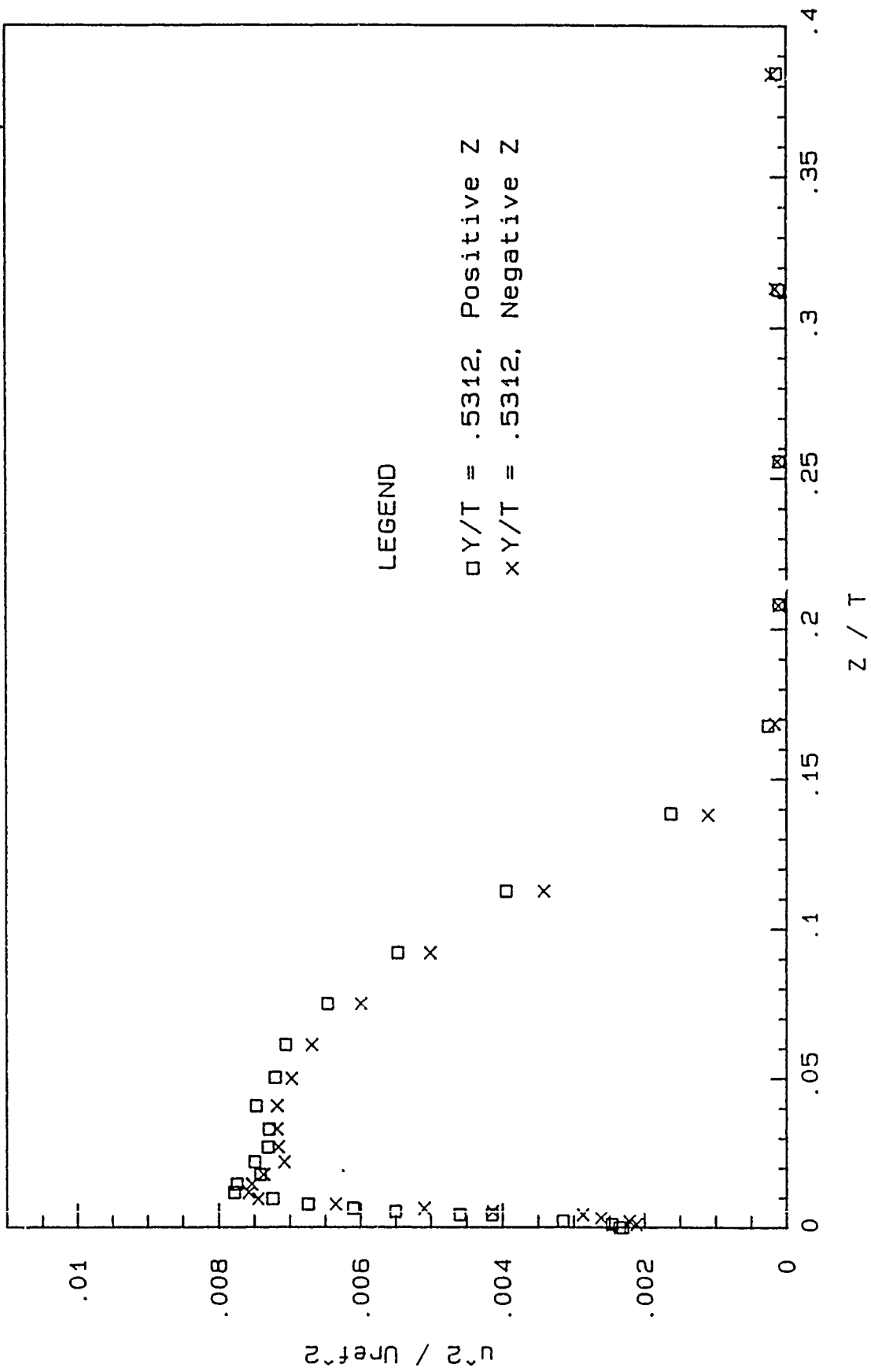


Figure B.1-4 Profiles of $\overline{u^2}/U_{ref}^2$ measured on either side of the wing 1mm downstream of its trailing edge with no boundary layer trip, $Re_{\theta} = 6700$.

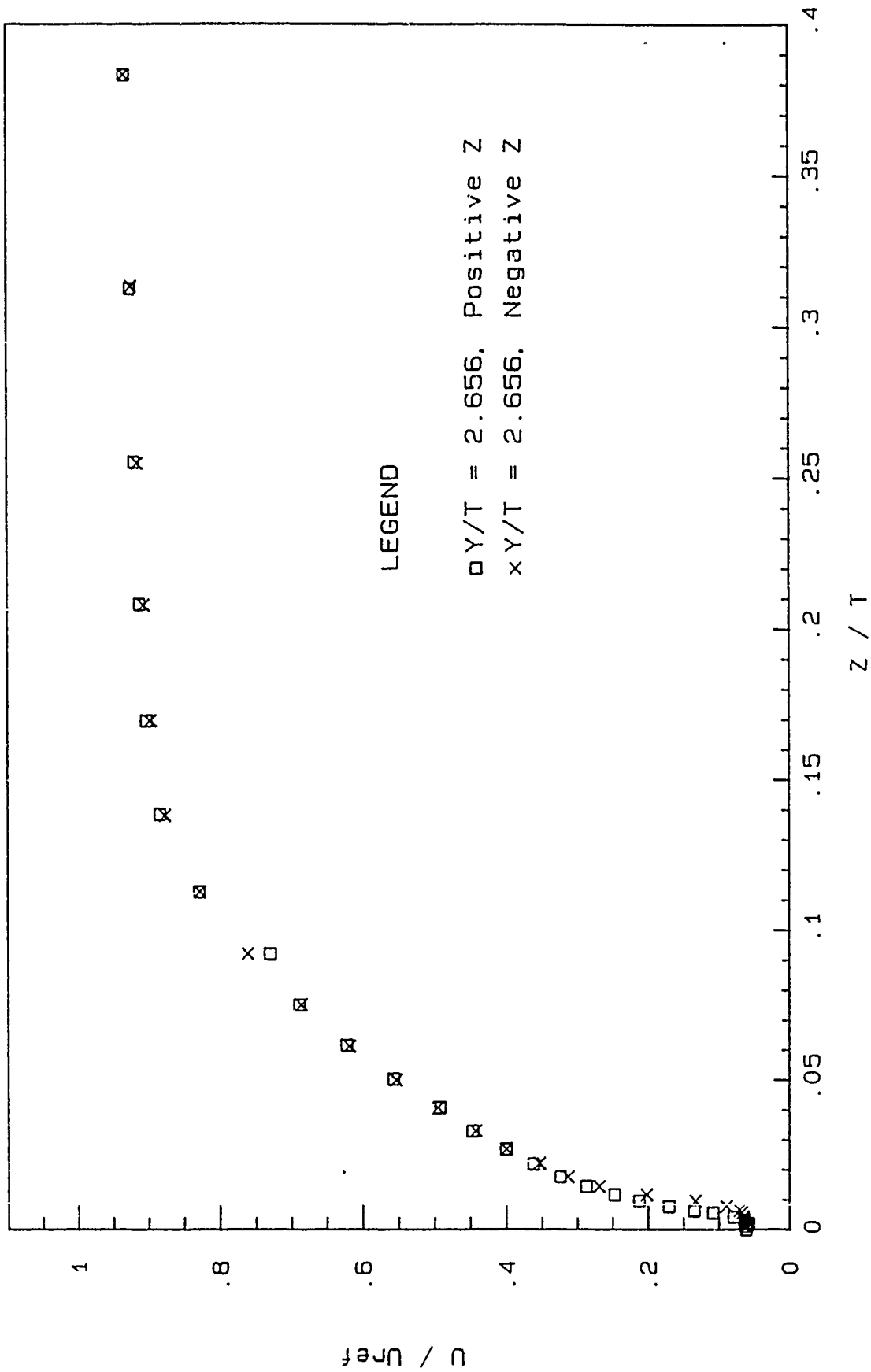


Figure B.1-5 Mean velocity profiles measured on either side of the wing lmm downstream of its trailing edge with no boundary layer trip, $Re_{\theta} = 6700$.

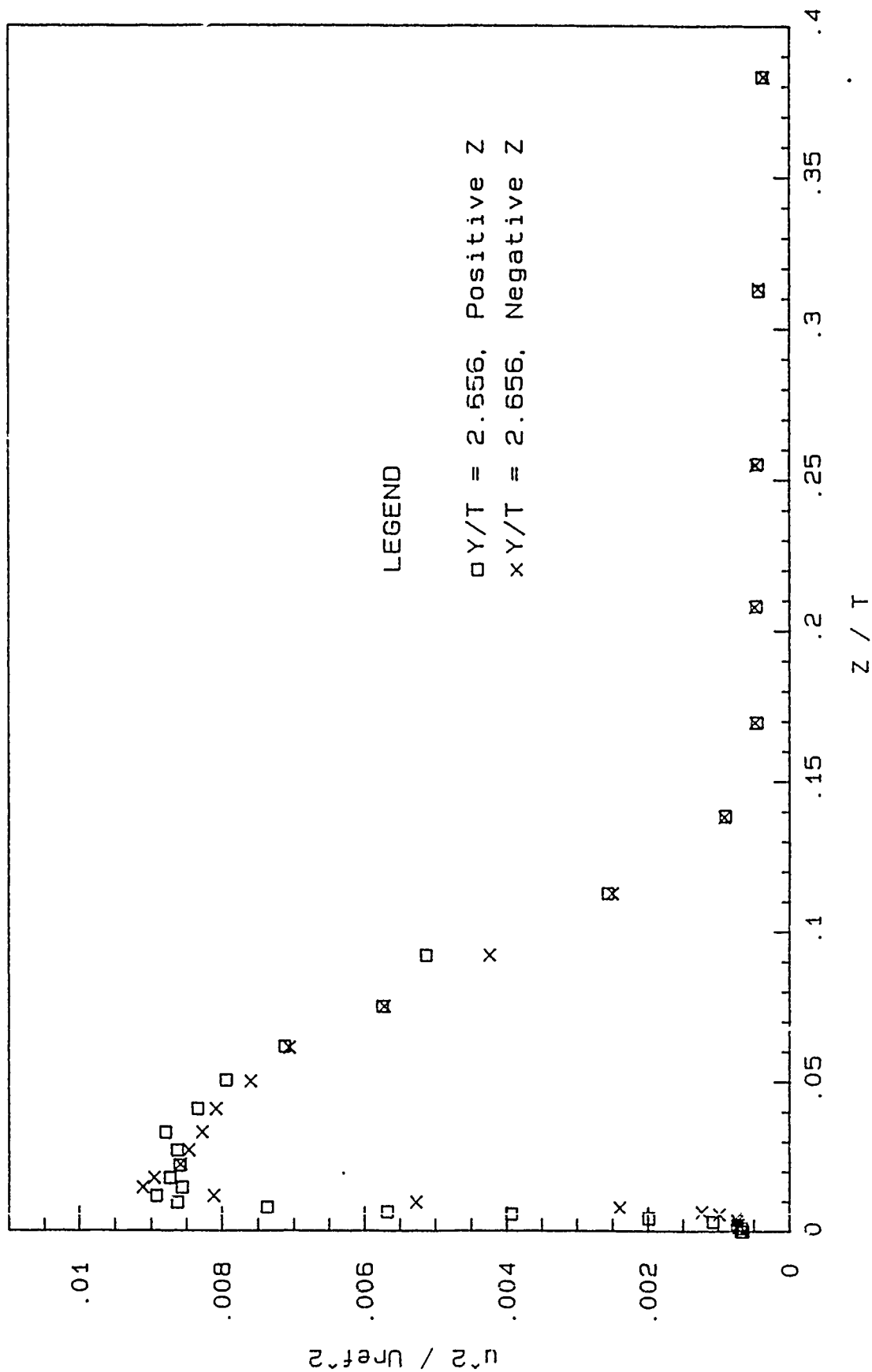


Figure B.1-6 Profiles of $\overline{u^2}/U_{ref}^2$ measured on either side of the wing Imm downstream of its trailing edge with no boundary layer trip, $Re_\theta = 6700$.

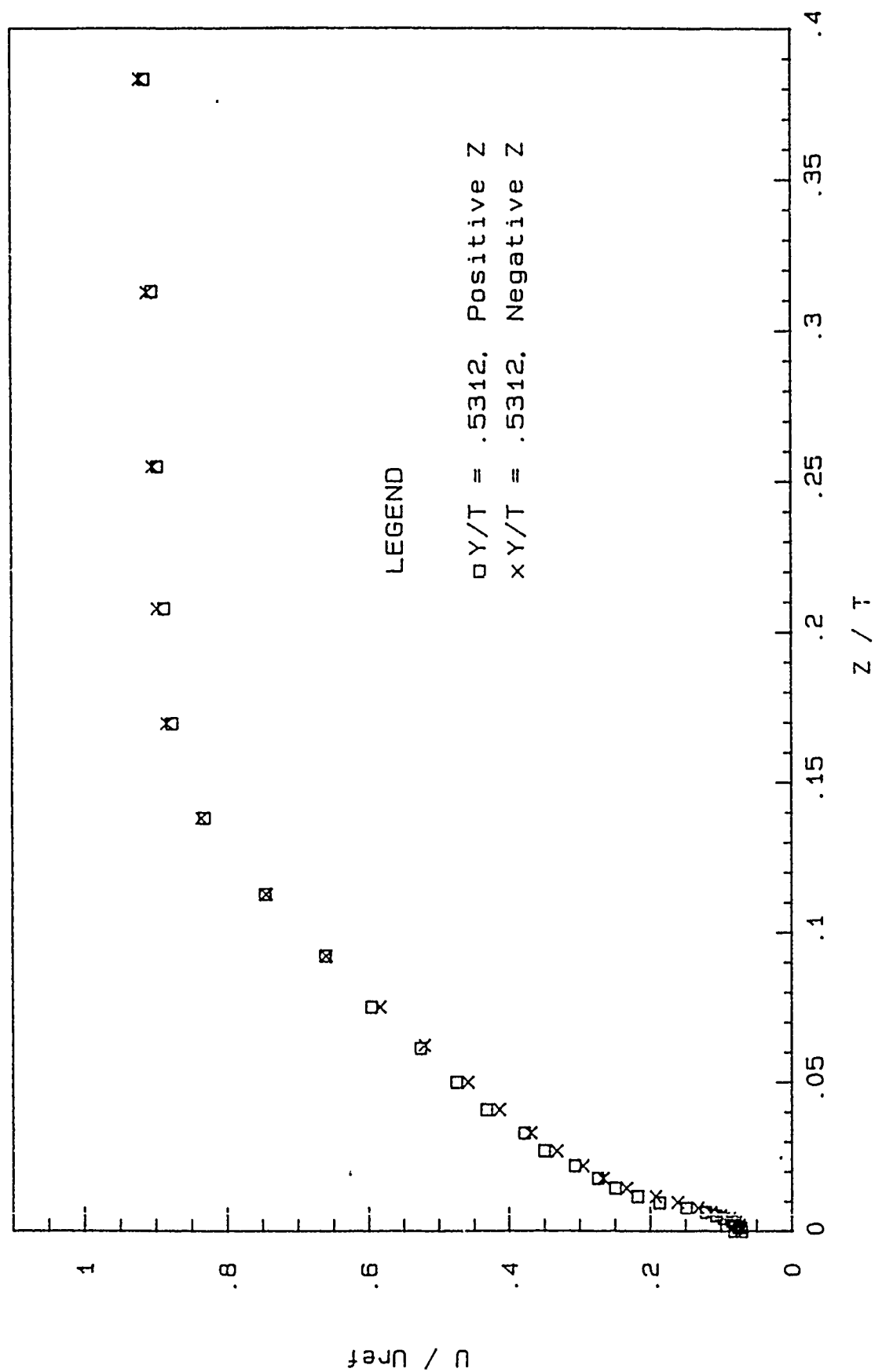


Figure B.1-7 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with the 220-grade sandpaper trip, $Re_\theta = 6700$.

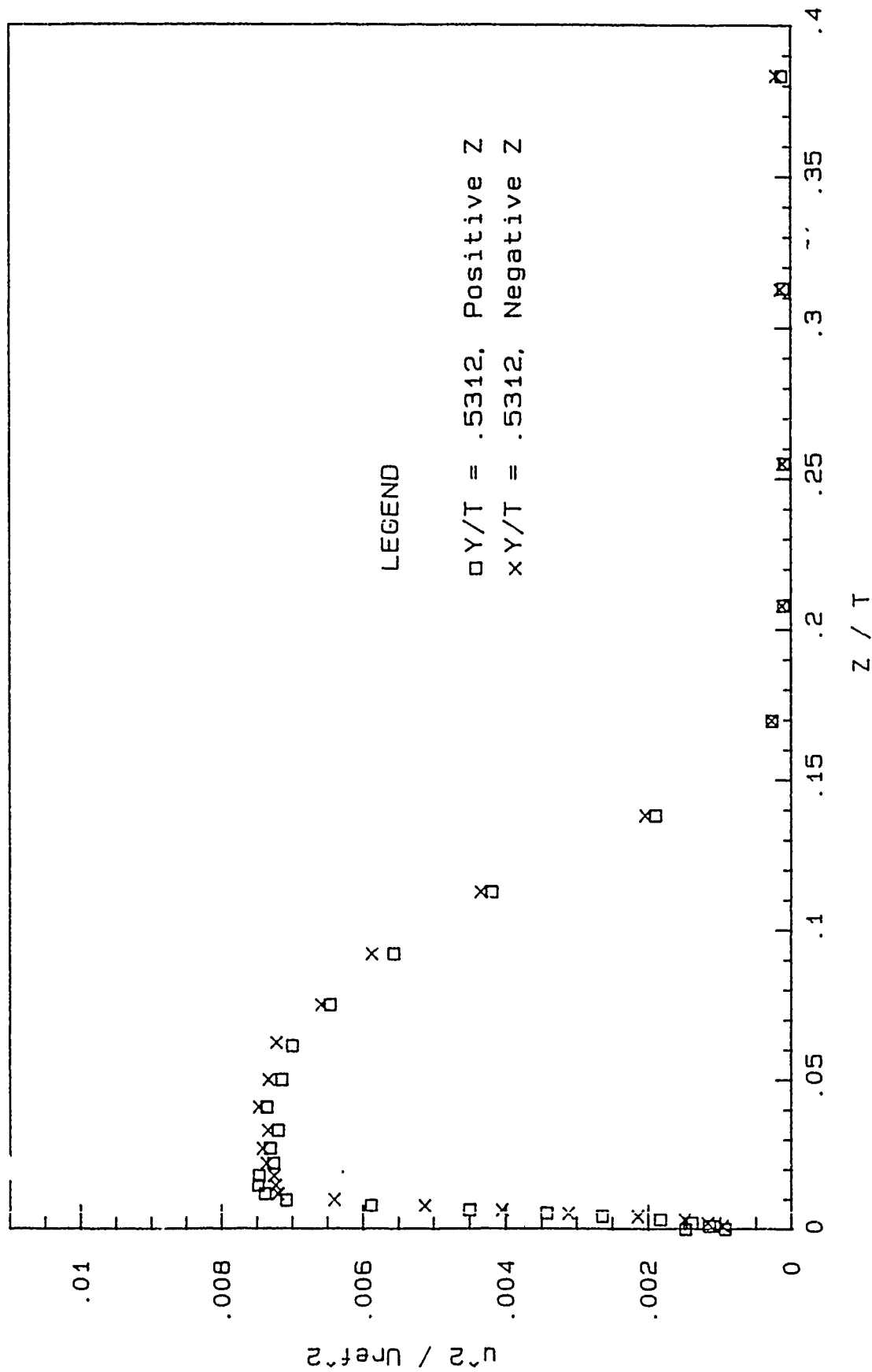


Figure B.1-8 Profiles of u^2 / U_{ref}^2 measured on either side of the wing 1mm downstream of its trailing edge with the 220-grade sandpaper trip, $Re_\theta = 6700$.

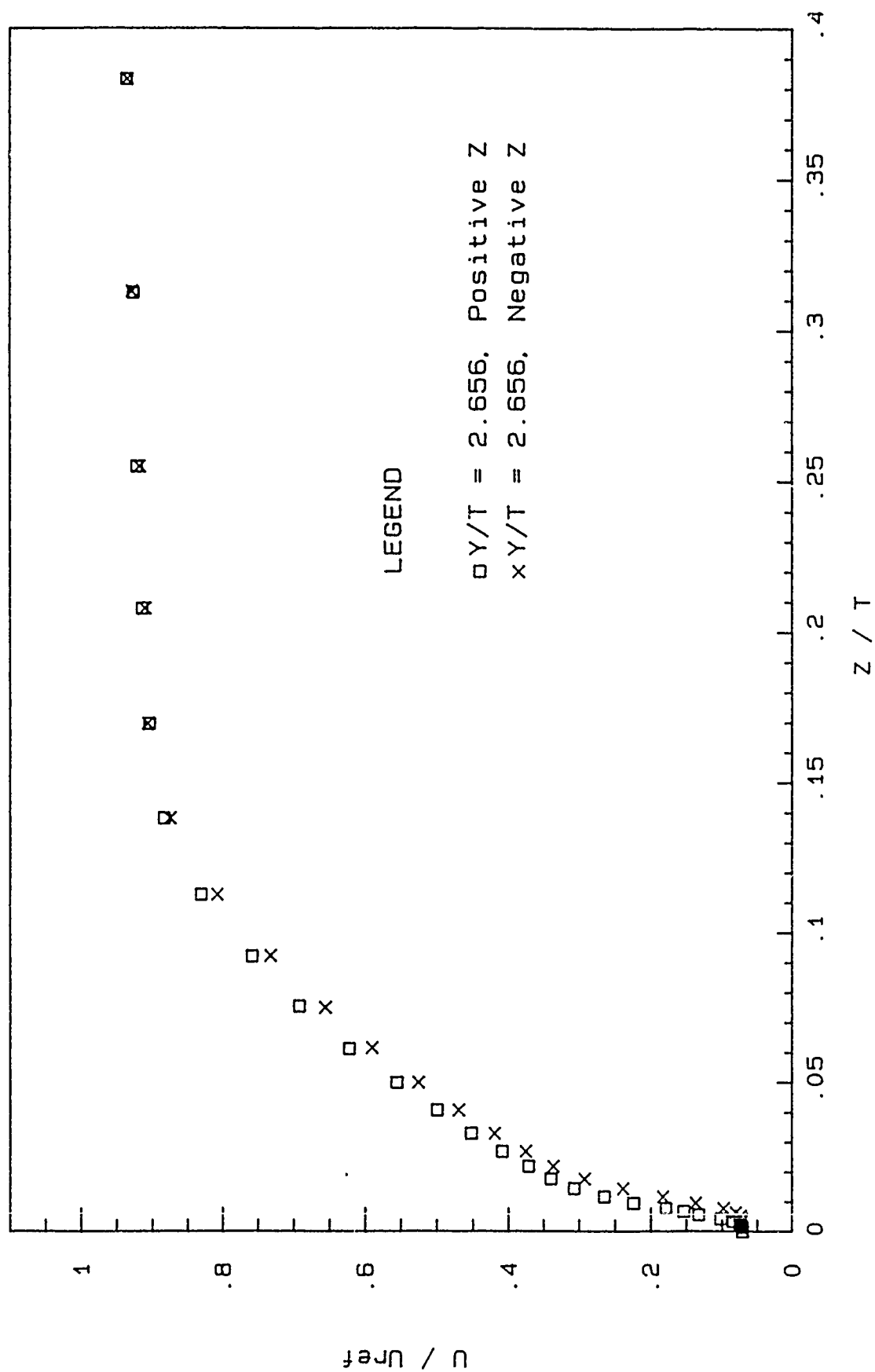


Figure B.1-9 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with the 220-grade sandpaper trip, $Re_{\theta} = 6700$.

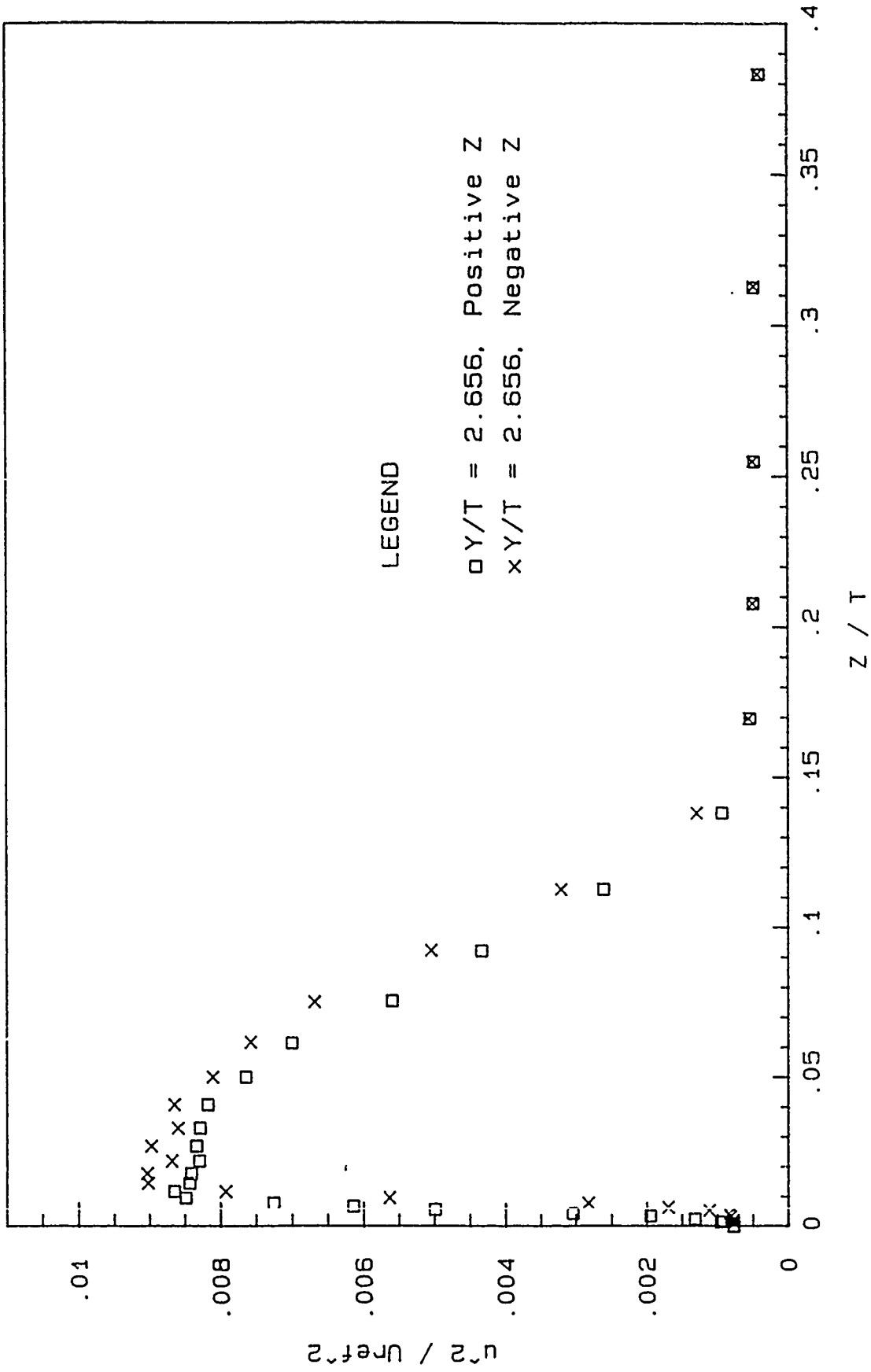


Figure B.1-10 Profiles of $\overline{u^2} / U_{ref}^2$ measured on either side of the wing lmm downstream of its trailing edge with the 220-grade sandpaper trip, $Re_\theta = 6700$.

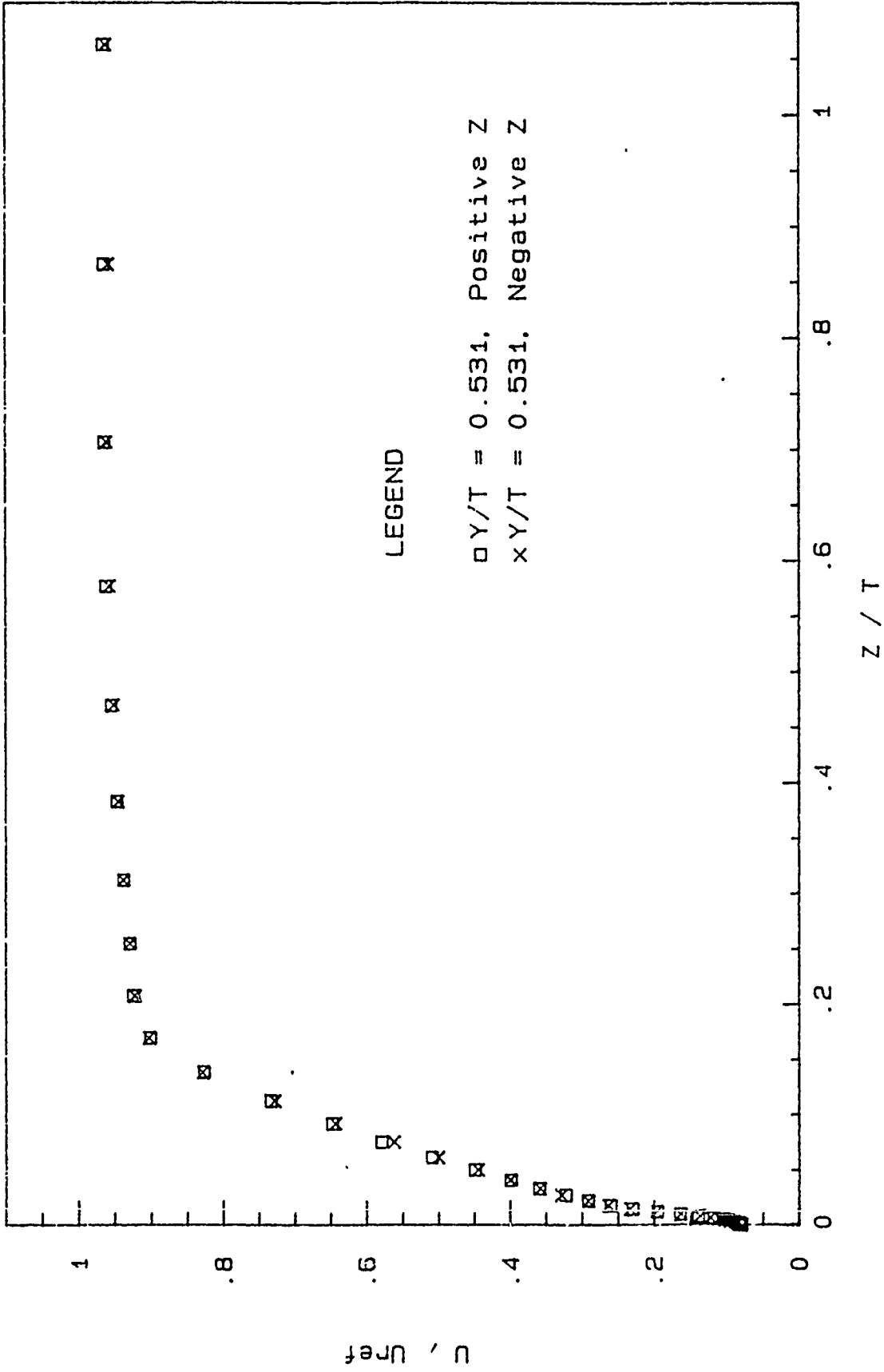


Figure B.1-11 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with the 120-grade sandpaper trip, $Re_\theta = 6700$.

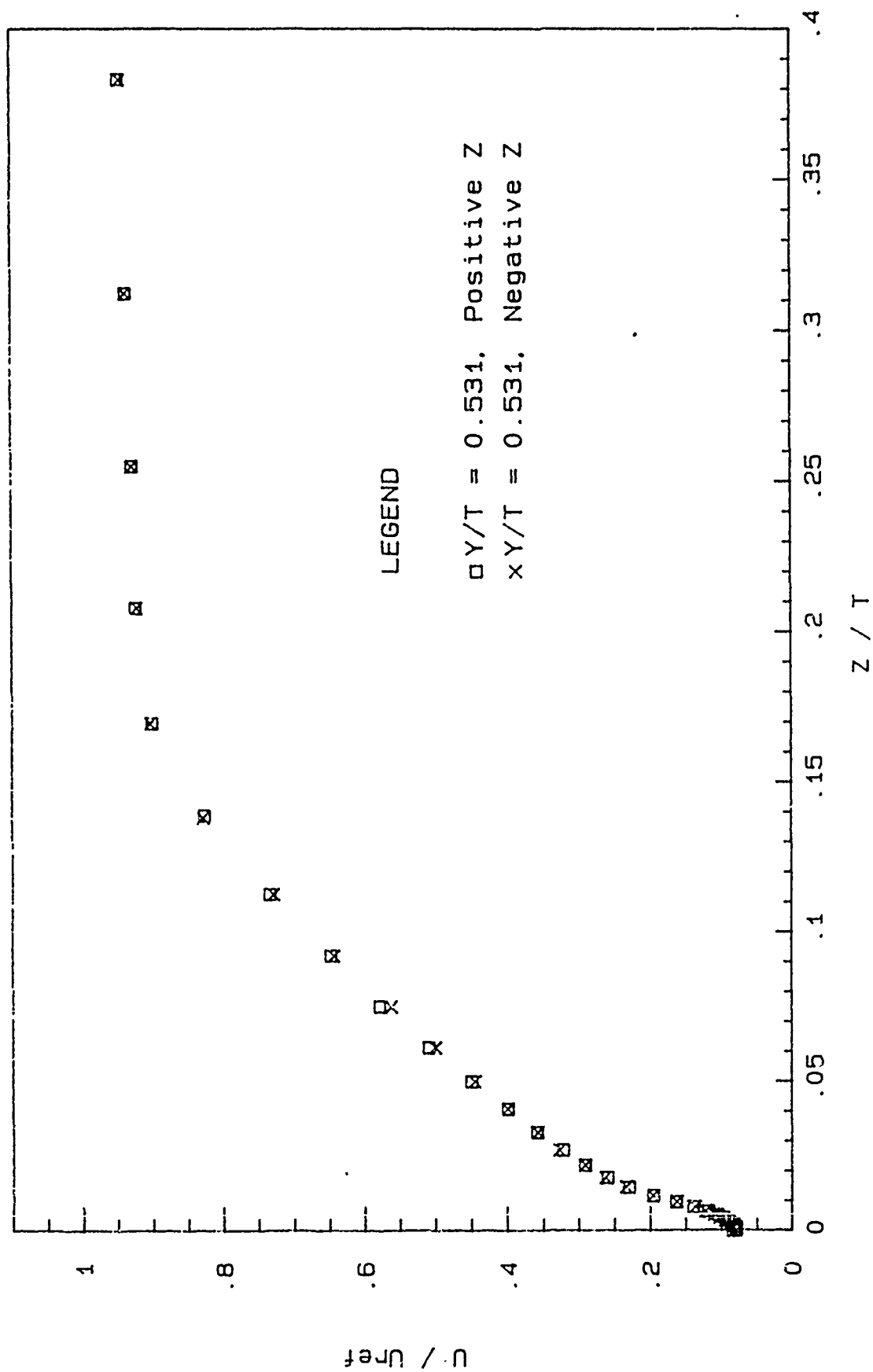


Figure B.1-12 Profiles of $\overline{u^2}/U_{ref}^2$ measured on either side of the wing 1mm downstream of its trailing edge with the 120-grade sandpaper trip, $Re_\theta = 6700$.

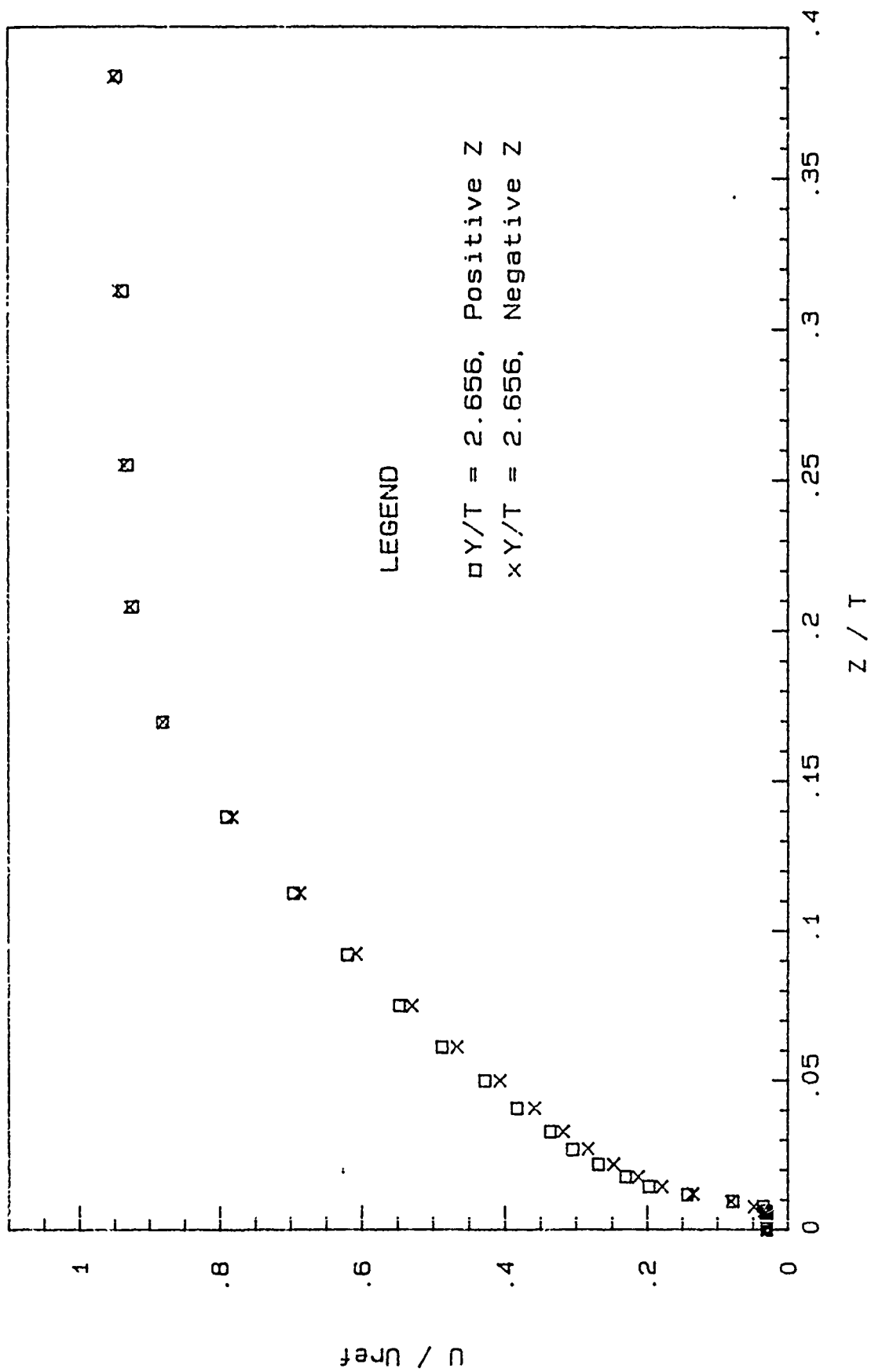


Figure B.1-13 Mean velocity profiles measured on either side of the wing lmm downstream of its trailing edge with the 120-grade sandpaper trip, $Re_\theta = 6700$.

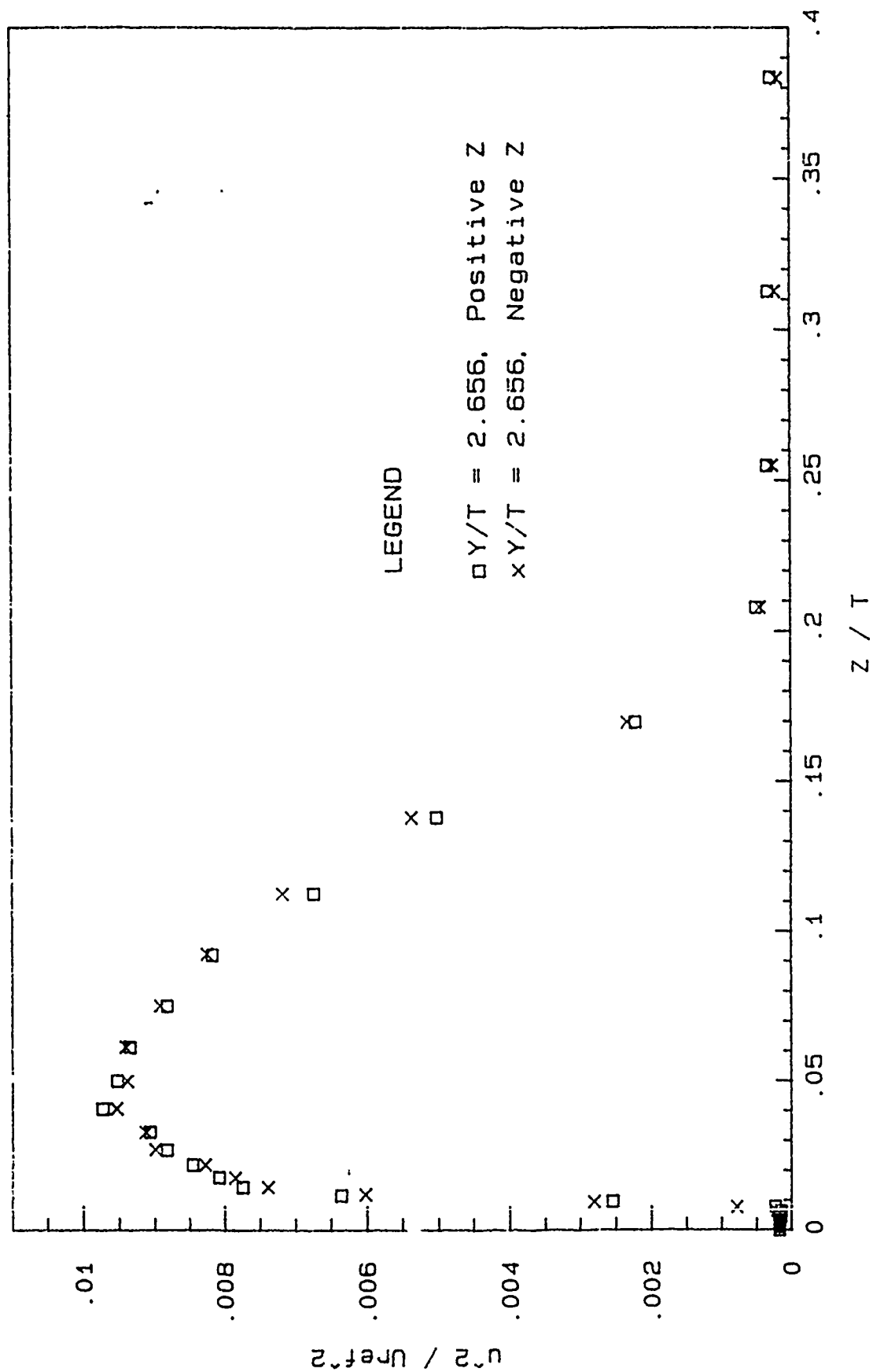


Figure B.1-14 Profiles of $\overline{u^2} / U_{ref}^2$ measured on either side of the wing 1mm downstream of its trailing edge with the 120-grade sandpaper trip, $Re_\theta = 6700$.

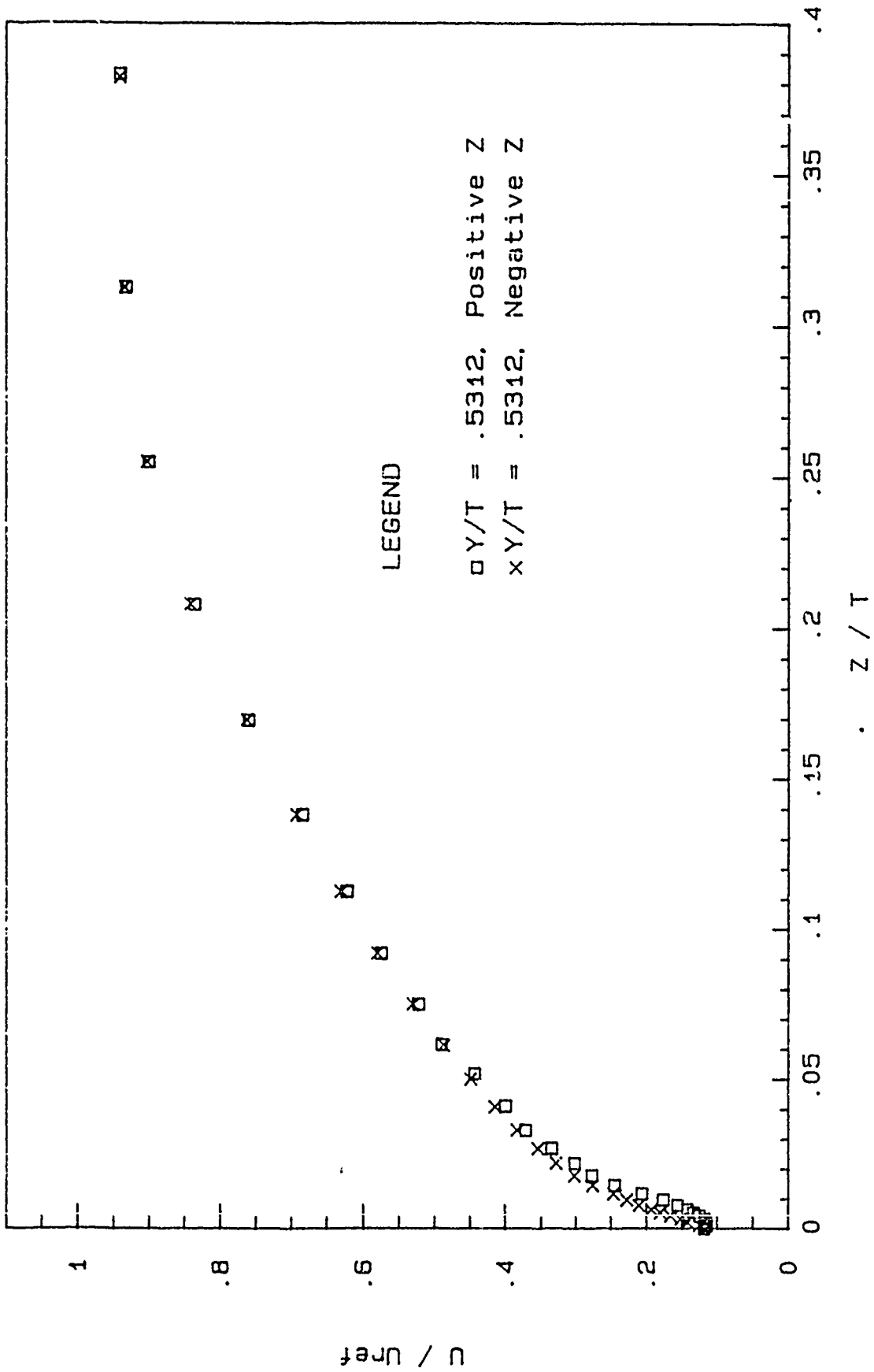


Figure B.1-15 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with the wire trip, $Re_o = 6700$.

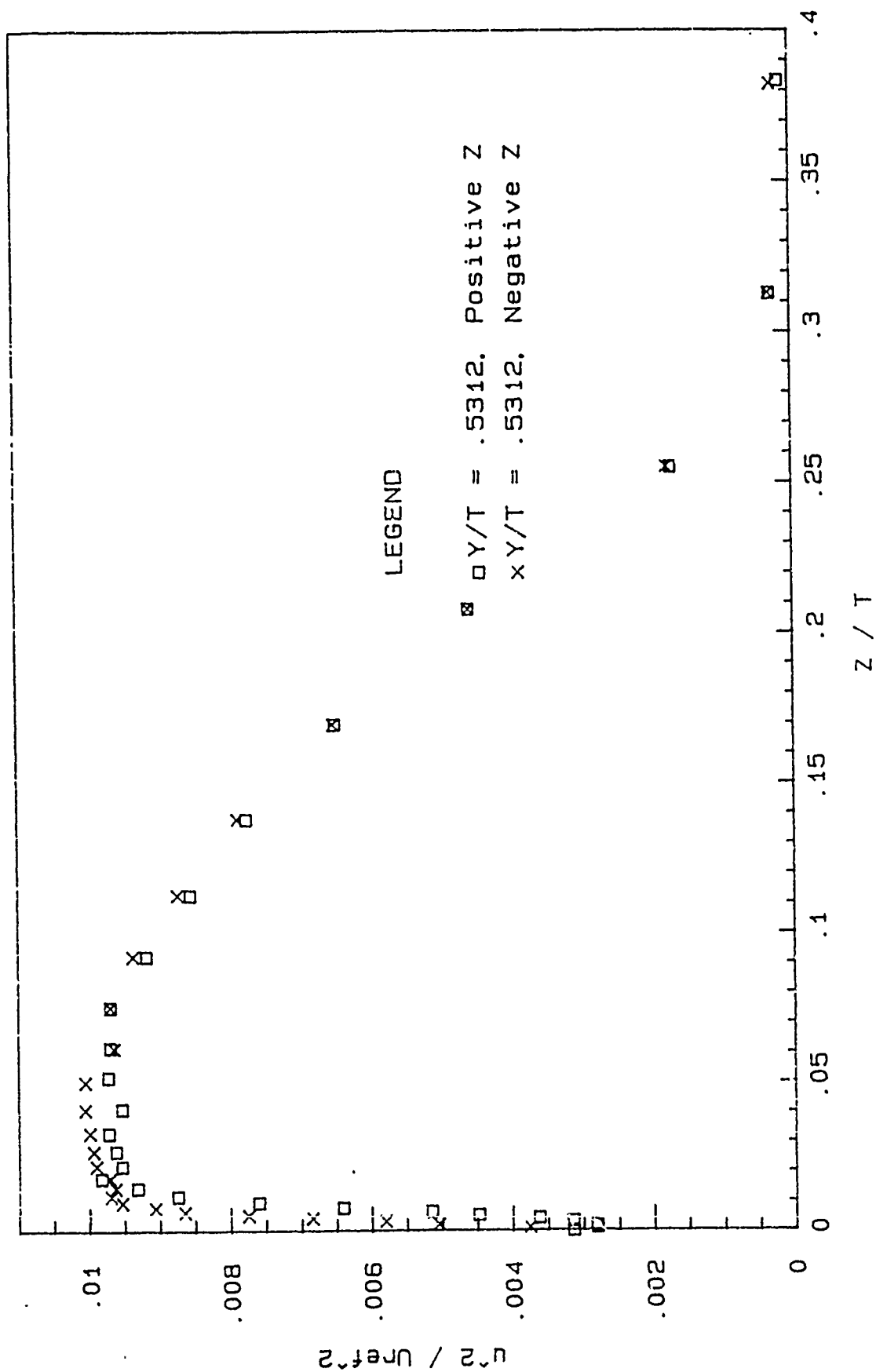


Figure B.1-16 Profiles of u'^2 / U_{ref}^2 measured on either side of the wing 1mm downstream of its trailing edge with the wire trip, $Re_\theta = 6700$.

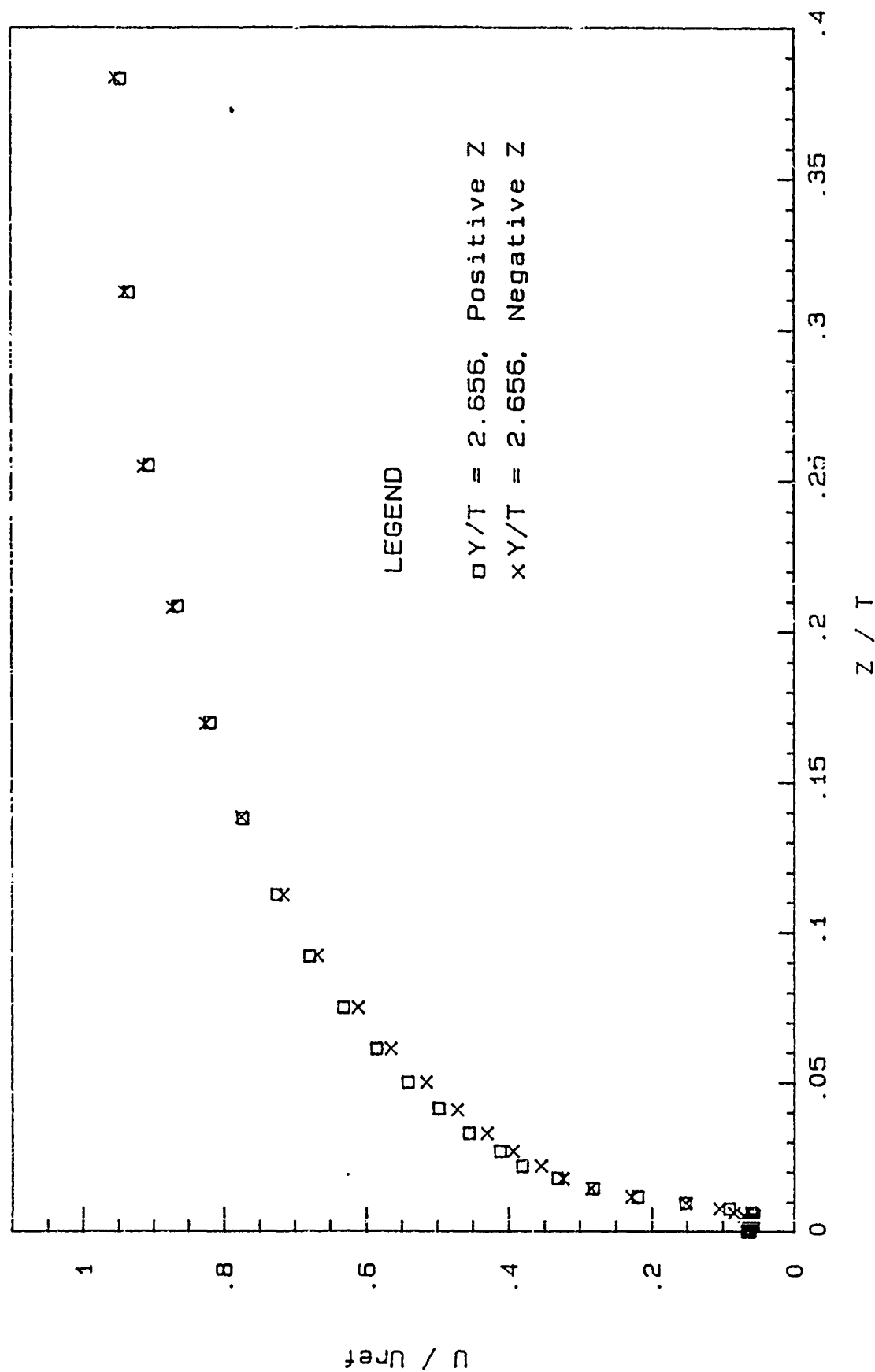


Figure B.1-17 Mean velocity profiles measured on either side of the wing 1mm downstream of its trailing edge with the wire trip, $Re_\theta = 6700$.

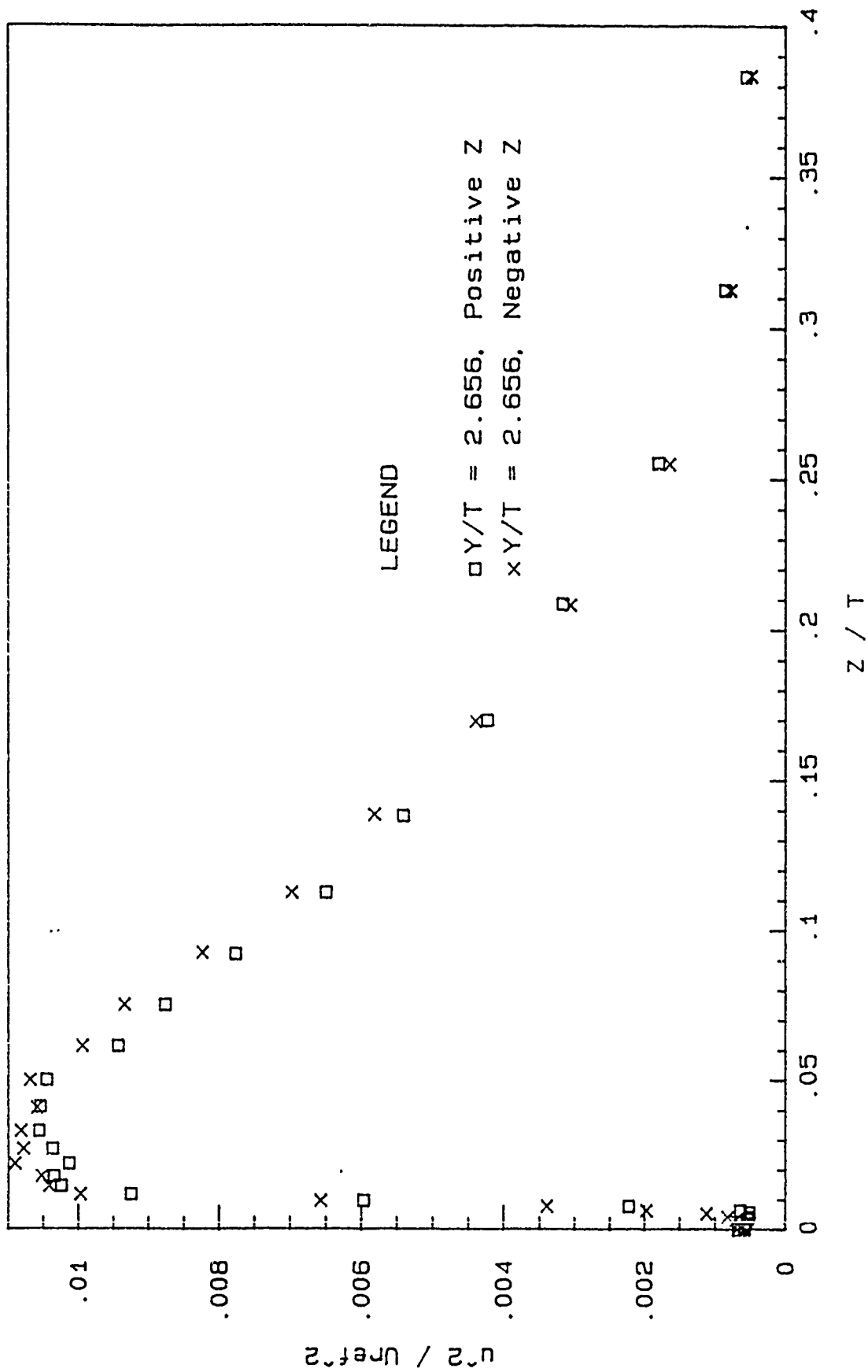


Figure B.1-18 Profiles of u^2 / U_{ref}^2 measured on either side of the wing 1mm downstream of its trailing edge with the wire trip, $Re_\theta = 6700$.

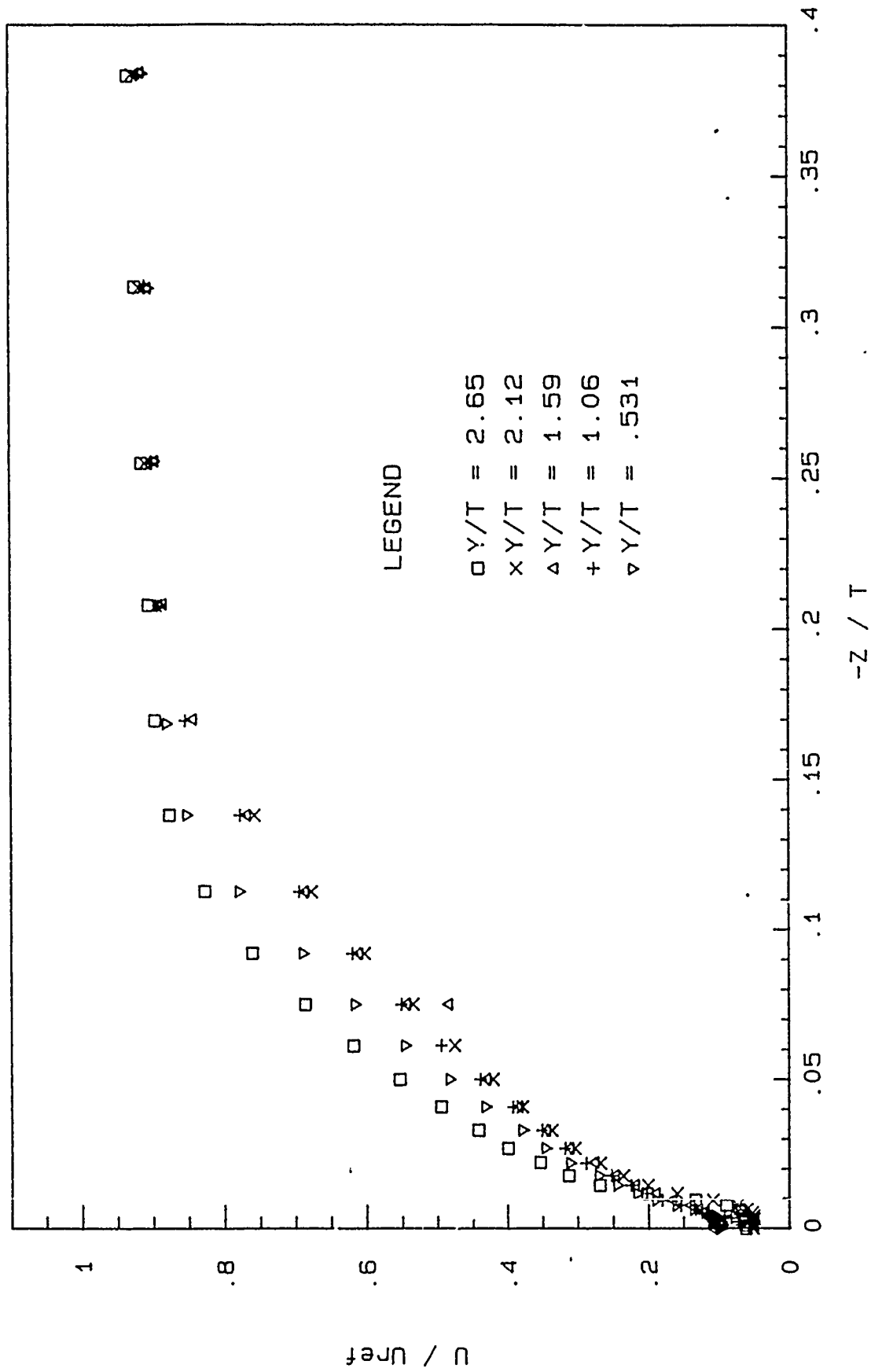


Figure B.1-19 Comparison of mean velocity profiles measured at different heights lmm downstream of the trailing edge of the wing, no trip, $Re_0 = 6700$.

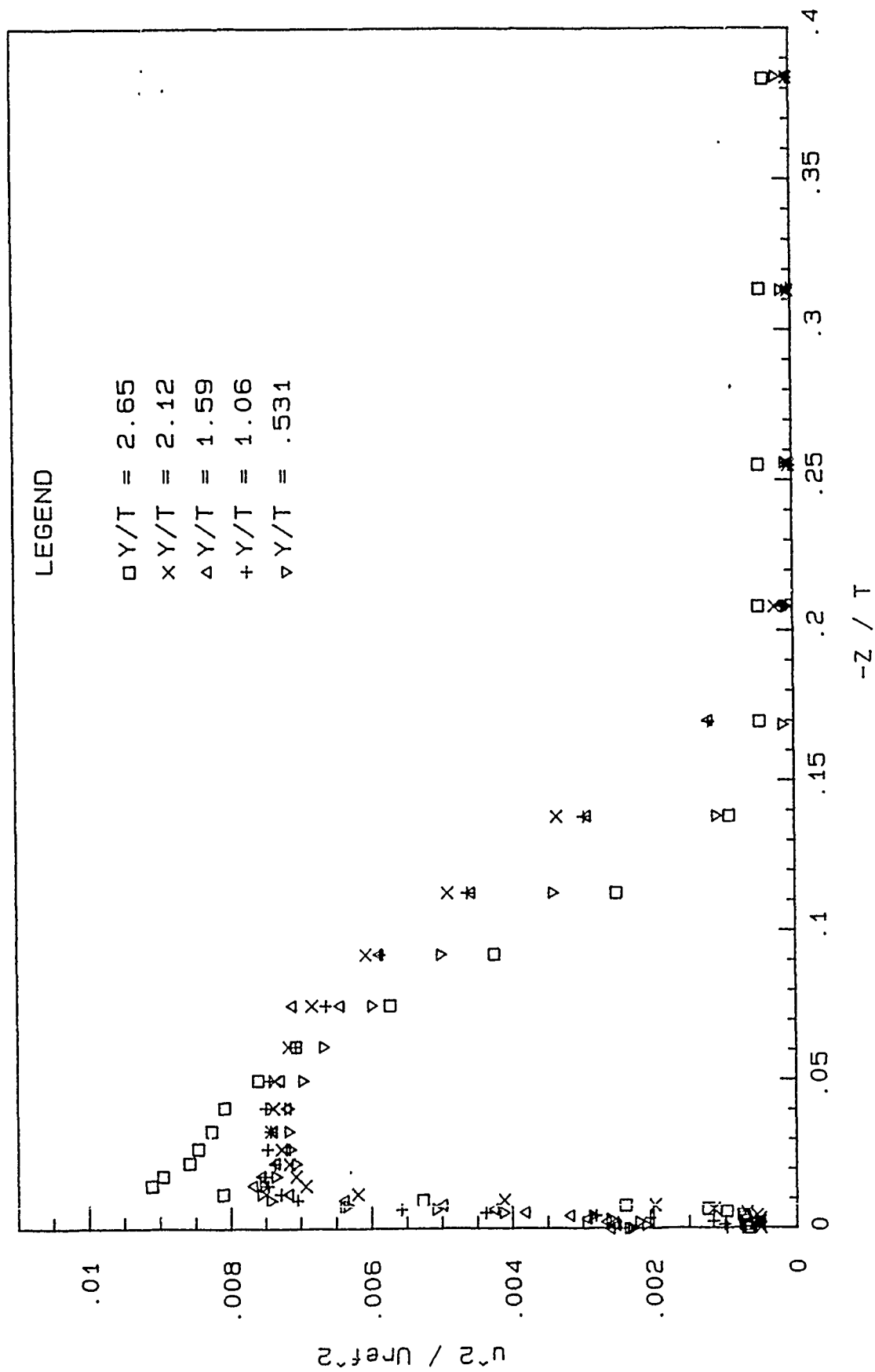


Figure B.1-20 Comparison of profiles of u^2 / U_{ref}^2 measured at different heights l_{mm} downstream of the trailing edge of the wing, no trip, $Re_\theta = 6700$.

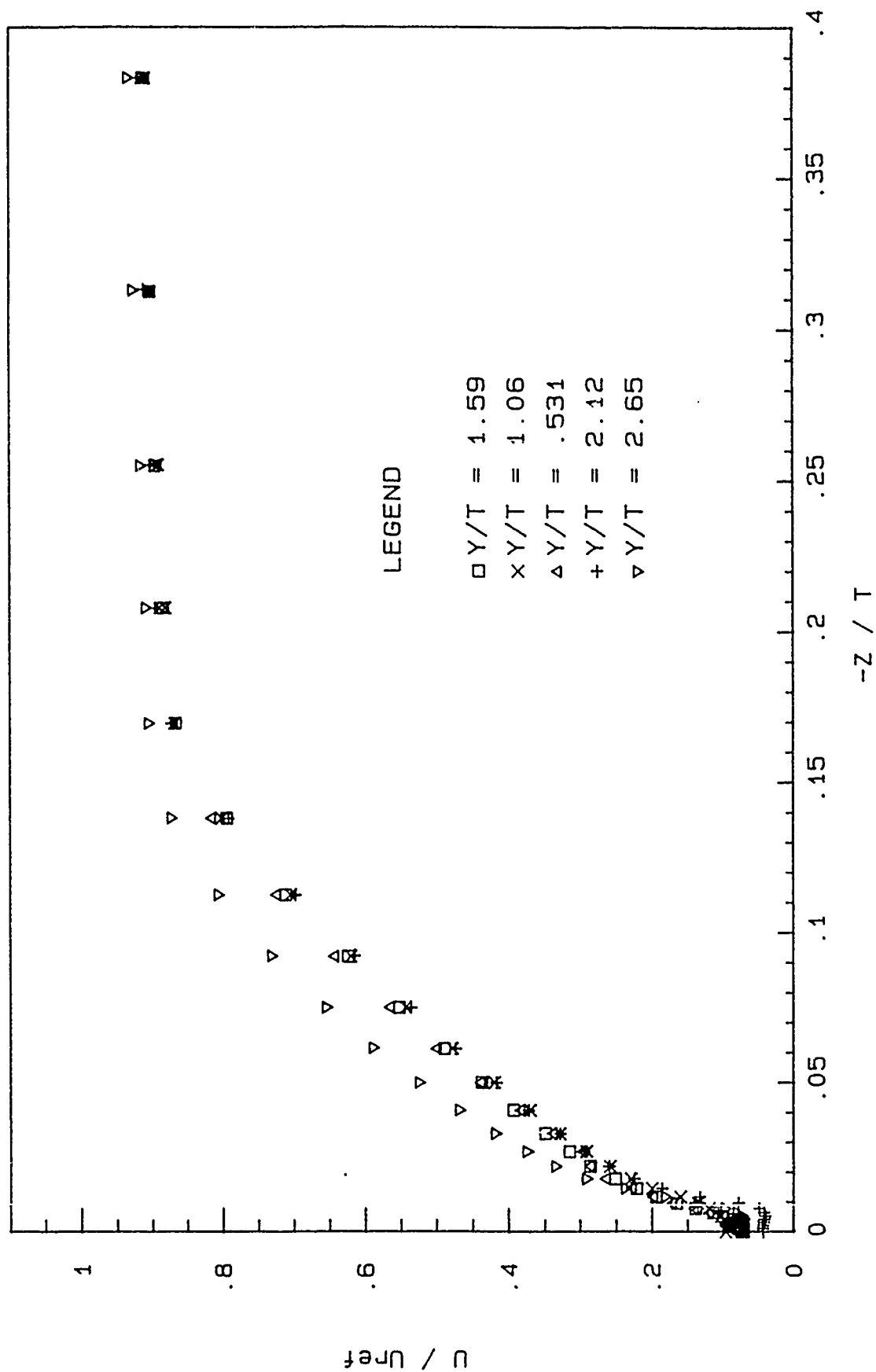


Figure B.1-21 Comparison of mean velocity profiles measured at different heights 1mm downstream of the trailing edge of the wing, 220-grade sandpaper trip, $Re_\theta = 6700$.

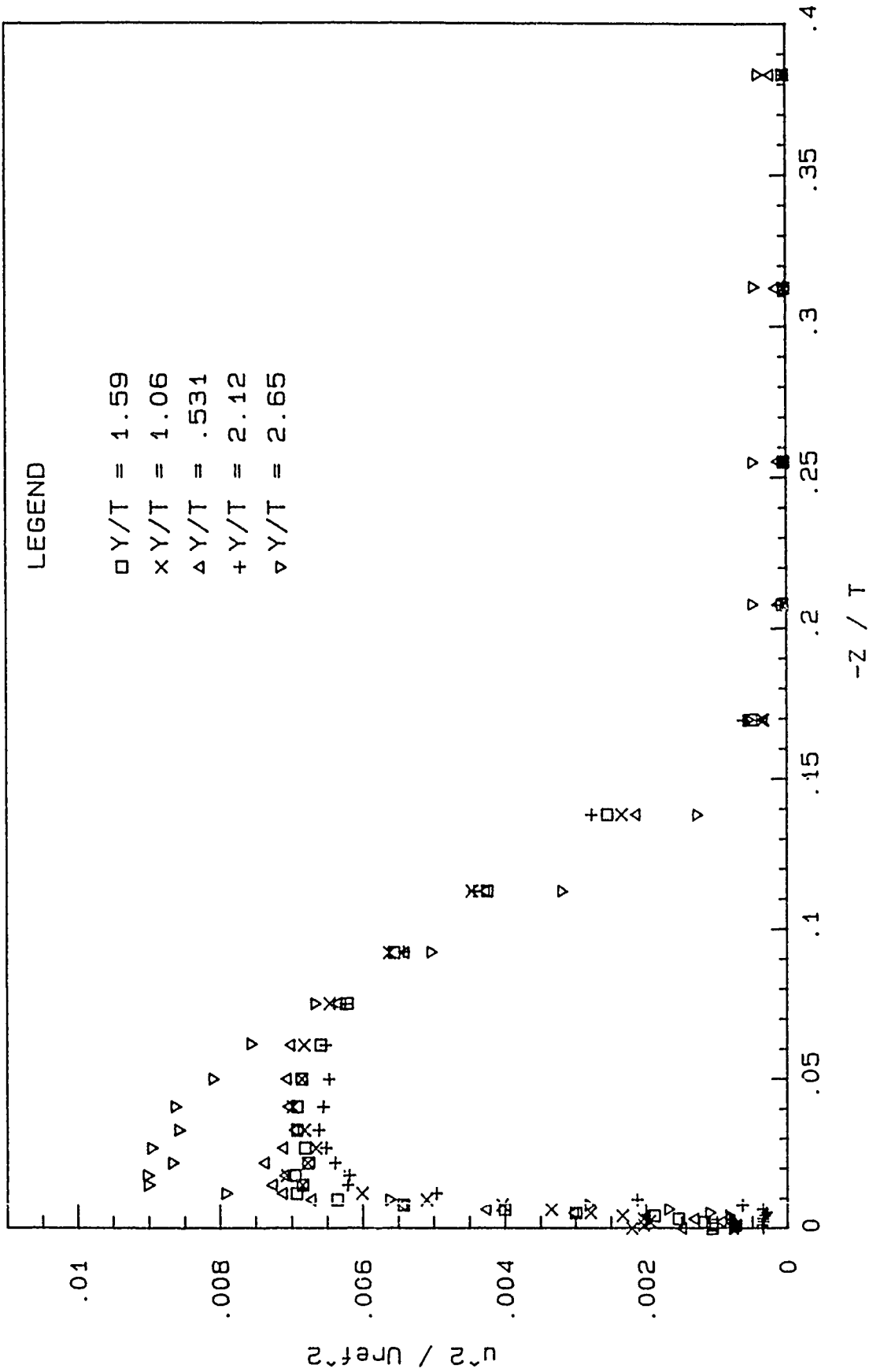


Figure B.1-22 Comparison of profiles of u'^2 / U_{ref}^2 measured at different heights l_{mm} downstream of the trailing edge of the wing, 220-grade sandpaper trip, $Re_{\theta} = 6700$.

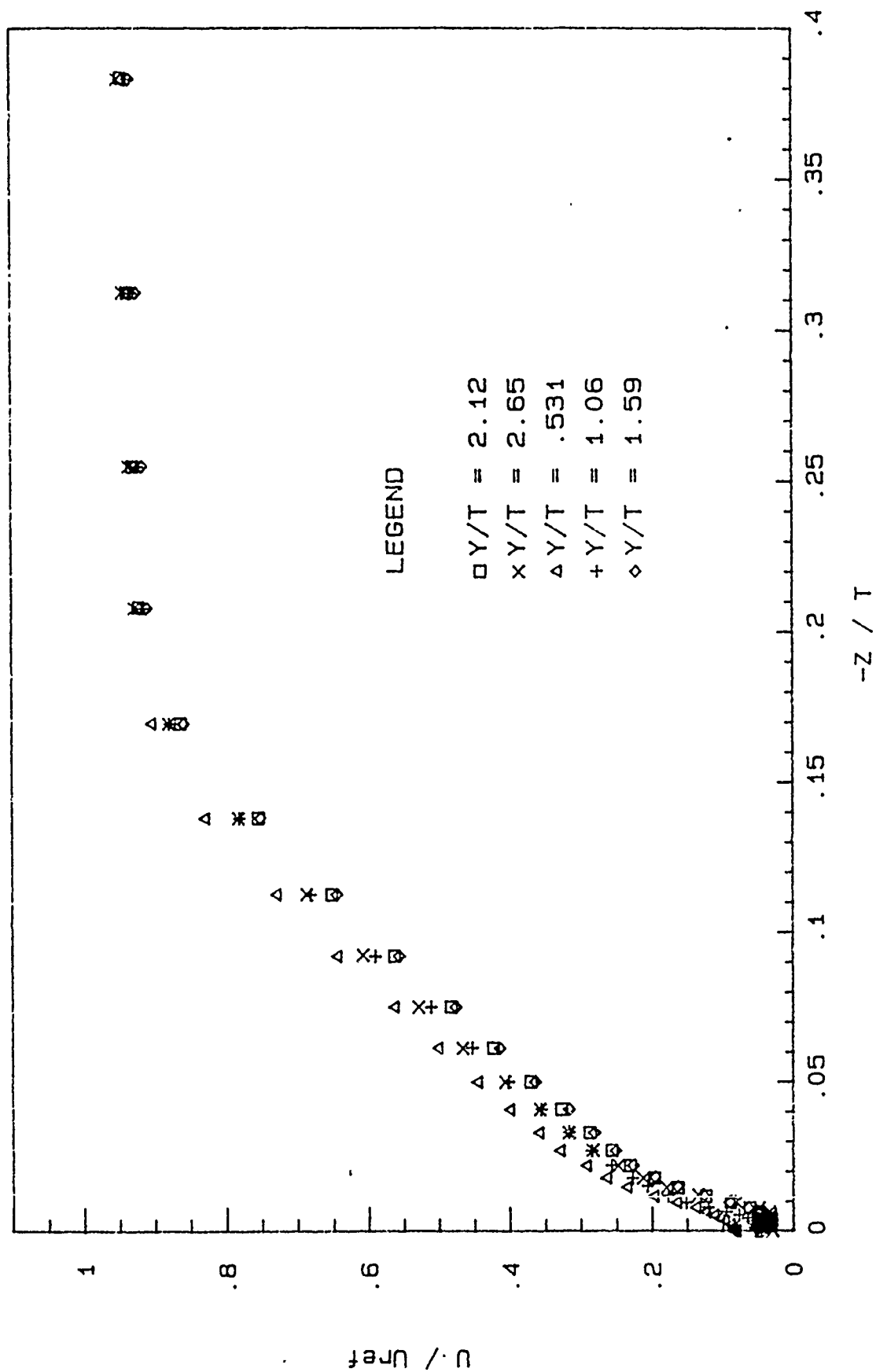


Figure B.1-23 Comparison of mean velocity profiles measured at different heights l_{mm} downstream of the trailing edge of the wing, 120-grade sandpaper trip, $Re_{\theta} = 6700$.

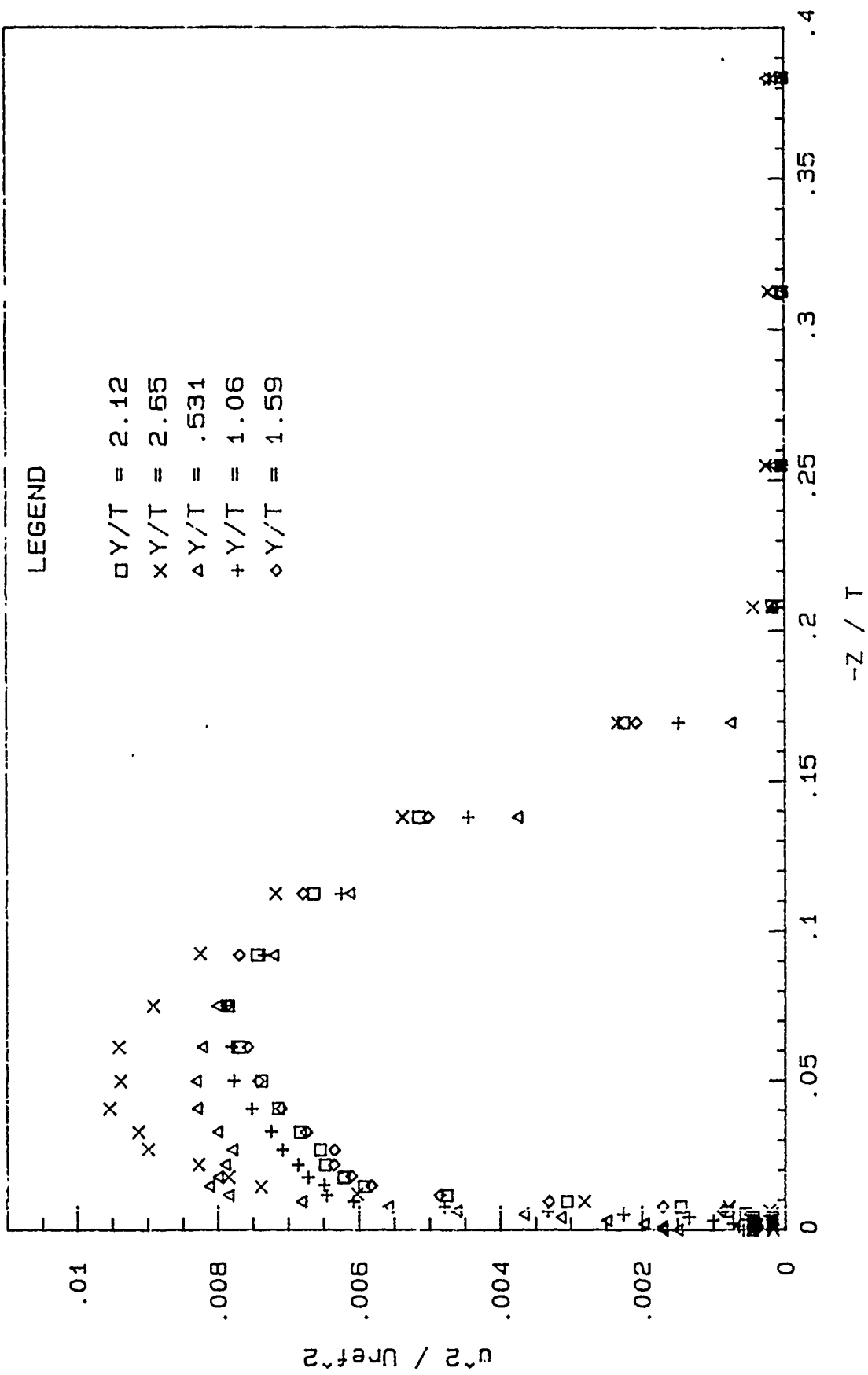


Figure B.1-24 Comparison of profiles of u^2 / U_{ref}^2 measured at different heights 1mm downstream of the trailing edge of the wing, 120-grade sandpaper trip, $Re_\theta = 6700$.

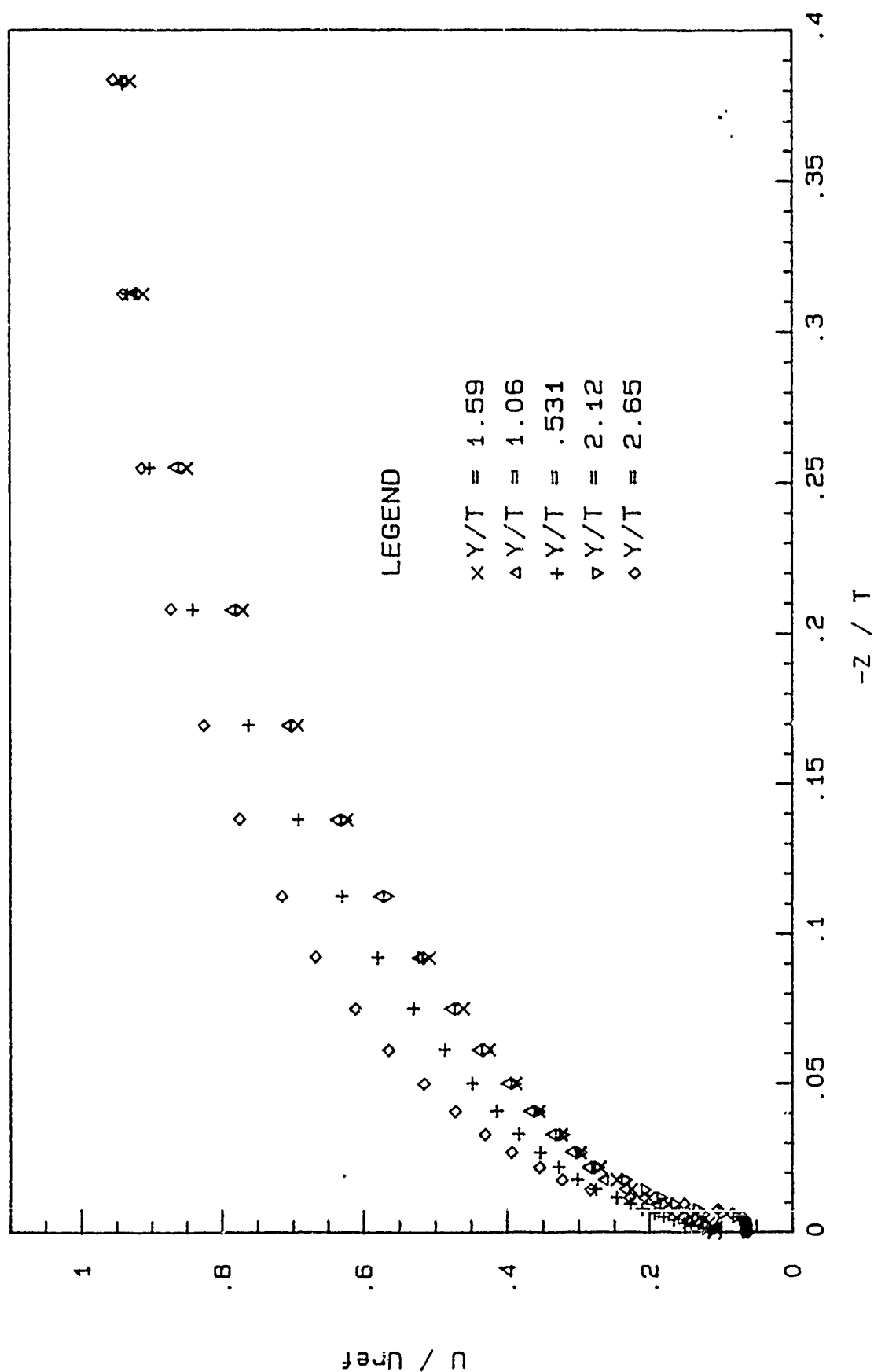


Figure B.1-25 Comparison of mean velocity profiles measured at different heights lmm downstream of the trailing edge of the wing, wire trip, $Re_\theta = 6700$.

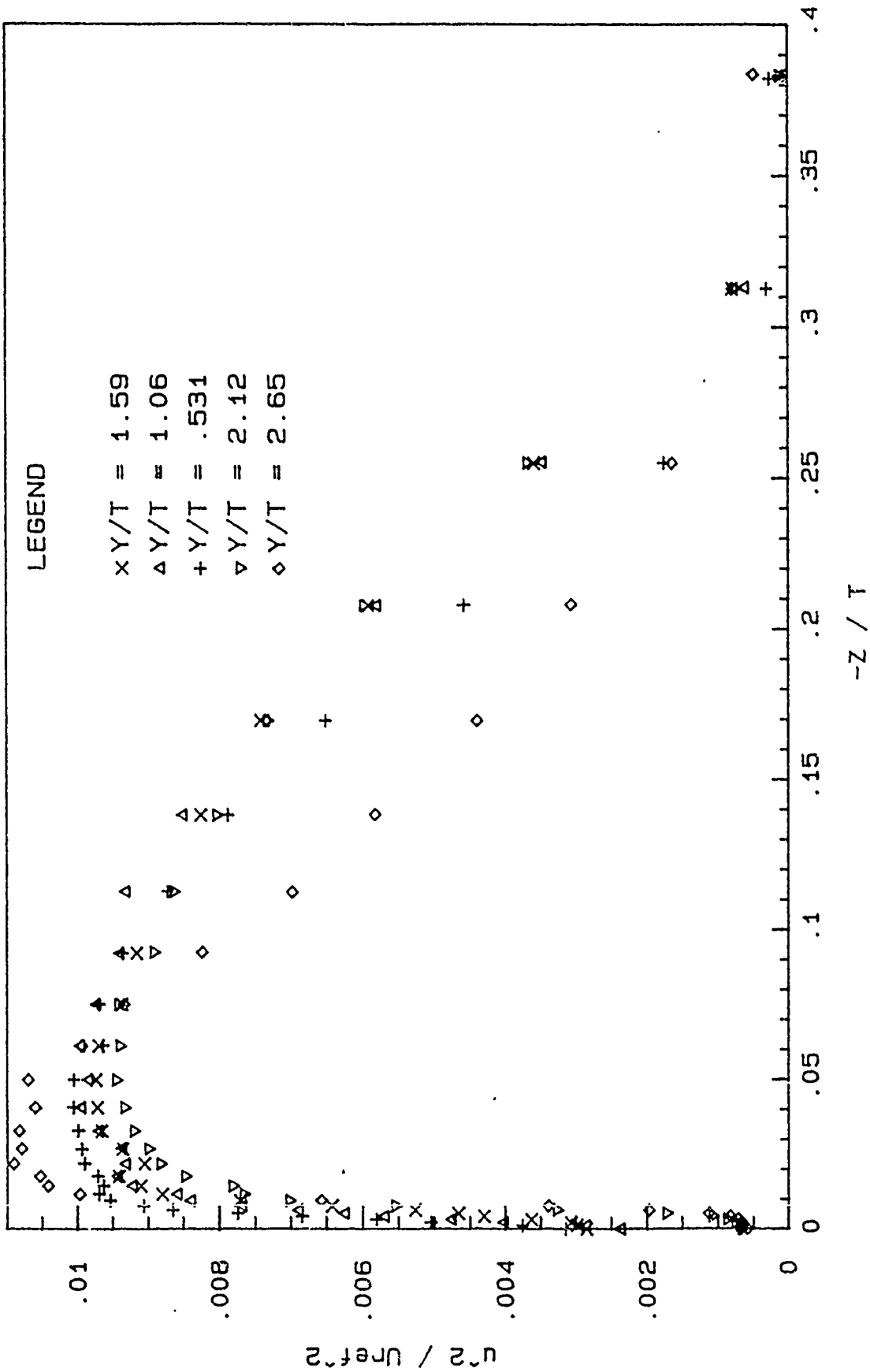


Figure B.1-26 Comparison of profiles of u'^2 / U_{ref}^2 measured at different heights 1mm downstream of the trailing edge of the wing, wire trip, $Re_0 = 6700$.

File E464170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23.8

density (kilograms per meter cubed) = 1.121501

viscosity (meters squared per second) = 1.632329E-05

Atmospheric pressure (Pascals) = 95575

Velocity of undisturbed free stream (Uref. in m/s) = 27.70094

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089468E-03

Estimated momentum thickness Reynolds number = 6939.904

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	5.3116E-01	0.0000E+00	9.7449E-02	2.3115E-03	1.4929E-04
4.2635E+00	5.3116E-01	-1.0623E-03	9.5774E-02	2.1136E-03	1.2170E-04
4.2635E+00	5.3116E-01	-2.1246E-03	9.7084E-02	2.2163E-03	1.3140E-04
4.2635E+00	5.3116E-01	-3.1870E-03	1.0010E-01	2.6157E-03	1.7988E-04
4.2635E+00	5.3116E-01	-4.2493E-03	1.0464E-01	2.8707E-03	2.0161E-04
4.2635E+00	5.3116E-01	-5.3116E-03	1.1970E-01	4.1309E-03	3.2065E-04
4.2635E+00	5.3116E-01	-6.3739E-03	1.3573E-01	5.0907E-03	3.5957E-04
4.2635E+00	5.3116E-01	-7.7904E-03	1.6051E-01	6.3452E-03	3.7723E-04
4.2635E+00	5.3116E-01	-9.5609E-03	1.8921E-01	7.4372E-03	3.3976E-04
4.2635E+00	5.3116E-01	-1.1686E-02	2.1619E-01	7.5723E-03	2.4365E-04
4.2635E+00	5.3116E-01	-1.4518E-02	2.4460E-01	7.5283E-03	1.7236E-04
4.2635E+00	5.3116E-01	-1.7705E-02	2.7084E-01	7.3626E-03	1.2612E-04
4.2635E+00	5.3116E-01	-2.1955E-02	3.1157E-01	7.0738E-03	1.2324E-04
4.2635E+00	5.3116E-01	-2.6912E-02	3.4656E-01	7.1586E-03	1.0967E-04
4.2635E+00	5.3116E-01	-3.2932E-02	3.7954E-01	7.1793E-03	8.3595E-05
4.2635E+00	5.3116E-01	-4.0722E-02	4.3274E-01	7.1758E-03	5.1075E-05
4.2635E+00	5.3116E-01	-4.9929E-02	4.8294E-01	6.9693E-03	2.7297E-05
4.2635E+00	5.3116E-01	-6.1261E-02	5.4674E-01	6.6828E-03	-5.2448E-05
4.2635E+00	5.3116E-01	-7.5071E-02	6.1658E-01	5.9877E-03	-6.2041E-05
4.2635E+00	5.3116E-01	-9.2068E-02	6.8981E-01	5.0023E-03	-1.0962E-04
4.2635E+00	5.3116E-01	-1.1261E-01	7.7977E-01	3.4113E-03	-1.4477E-04
4.2635E+00	5.3116E-01	-1.3910E-01	8.5299E-01	1.1001E-03	-5.9431E-05
4.2635E+00	5.3116E-01	-1.6856E-01	8.9099E-01	1.6440E-04	-4.7200E-07
4.2635E+00	5.3116E-01	-2.0766E-01	8.9024E-01	1.0536E-04	-8.6779E-09
4.2635E+00	5.3116E-01	-2.5567E-01	8.9701E-01	1.1713E-04	-1.0400E-05
4.2635E+00	5.3116E-01	-3.1303E-01	9.0491E-01	1.5172E-04	-2.7299E-06
4.2635E+00	5.3116E-01	-3.8355E-01	9.1246E-01	2.0583E-04	-6.5825E-06
4.2635E+00	5.3116E-01	-4.6950E-01	9.2619E-01	2.7559E-04	-1.1489E-05
4.2635E+00	5.3116E-01	-5.7684E-01	9.3131E-01	3.5429E-04	-1.4331E-05
4.2635E+00	5.3116E-01	-7.0680E-01	9.3856E-01	4.5203E-04	-1.7648E-05
4.2635E+00	5.3116E-01	-8.6544E-01	9.4359E-01	7.4542E-04	-3.8097E-05
4.2635E+00	5.3116E-01	-1.0623E+00	9.4888E-01	8.2115E-04	-3.8415E-05
4.2635E+00	5.3116E-01	0.0000E+00	9.9502E-02	2.3546E-03	1.4692E-04
4.2635E+00	5.3116E-01	1.0623E-03	1.0112E-01	2.4619E-03	1.5152E-04
4.2635E+00	5.3116E-01	2.1246E-03	1.0779E-01	3.1475E-03	2.3621E-04
4.2635E+00	5.3116E-01	4.2493E-03	1.2015E-01	4.1420E-03	3.2530E-04
4.2635E+00	5.3116E-01	4.2493E-03	1.2520E-01	4.5920E-03	3.6594E-04
4.2635E+00	5.3116E-01	5.3116E-03	1.3973E-01	5.5009E-03	4.1639E-04
4.2635E+00	5.3116E-01	6.3739E-03	1.5245E-01	6.1007E-03	3.9323E-04
4.2635E+00	5.3116E-01	7.7904E-03	1.6559E-01	6.7355E-03	4.0382E-04
4.2635E+00	5.3116E-01	9.5609E-03	1.8539E-01	7.2394E-03	3.6264E-04
4.2635E+00	5.3116E-01	1.1686E-02	2.0911E-01	7.7738E-03	2.7562E-04
4.2635E+00	5.3116E-01	1.4518E-02	2.4095E-01	7.7398E-03	1.8946E-04
4.2635E+00	5.3116E-01	1.7705E-02	2.7889E-01	7.4106E-03	1.2509E-04
4.2635E+00	5.3116E-01	2.1955E-02	3.1002E-01	7.4689E-03	1.3645E-04
4.2635E+00	5.3116E-01	2.6912E-02	3.3821E-01	7.3026E-03	1.1947E-04
4.2635E+00	5.3116E-01	3.2932E-02	3.9187E-01	7.2897E-03	1.1697E-04
4.2635E+00	5.3116E-01	4.0722E-02	4.2207E-01	7.4674E-03	7.9325E-05
4.2635E+00	5.3116E-01	5.0283E-02	4.8440E-01	7.2034E-03	2.1758E-05
4.2635E+00	5.3116E-01	6.1261E-02	5.3821E-01	7.0544E-03	-4.1130E-05
4.2635E+00	5.3116E-01	7.5071E-02	5.9833E-01	6.4606E-03	-7.1119E-05
4.2635E+00	5.3116E-01	9.2068E-02	6.7593E-01	5.4654E-03	-1.5539E-04
4.2635E+00	5.3116E-01	1.1261E-01	7.5511E-01	3.9427E-03	-1.4713E-04
4.2635E+00	5.3116E-01	1.3846E-01	8.3667E-01	1.6222E-03	-9.4321E-05
4.2635E+00	5.3116E-01	1.6795E-01	8.7399E-01	2.5975E-04	-5.3518E-05
4.2635E+00	5.3116E-01	2.0822E-01	8.8949E-01	1.0460E-04	2.0393E-07
4.2635E+00	5.3116E-01	2.5567E-01	8.9663E-01	1.0357E-04	-6.9621E-08
4.2635E+00	5.3116E-01	3.1268E-01	9.0547E-01	1.1092E-04	-1.0149E-06
4.2635E+00	5.3116E-01	3.8421E-01	9.1626E-01	1.3830E-04	-2.7115E-06
4.2635E+00	5.3116E-01	4.6990E-01	9.2601E-01	1.7289E-04	-4.0528E-06
4.2635E+00	5.3116E-01	5.7720E-01	9.3161E-01	2.5334E-04	-8.5136E-06
4.2635E+00	5.3116E-01	7.0644E-01	9.4126E-01	4.3752E-04	-1.6157E-05
4.2635E+00	5.3116E-01	8.6686E-01	9.4367E-01	7.2151E-04	-3.3567E-05
4.2635E+00	5.3116E-01	1.0634E+00	9.4401E-01	9.3219E-04	-4.3033E-05

Table B.1-1 Hot-wire velocity measurements at the trailing edge, no trip, Y / T = .531

File E463170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.120746

viscosity (meters squared per second) = 1.634278E-05

Atmospheric pressure (Pascals) = 95575

Velocity of undisturbed free stream (Uref, in m/s) = 27.64021

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091253E-03

Estimated momentum thickness Reynolds number = 5919.472

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.0623E+00	0.0000E+00	6.8775E-02	9.8069E-04	4.9004E-05
4.2635E+00	1.0623E+00	-1.0623E-03	6.9920E-02	1.0103E-03	5.7646E-05
4.2635E+00	1.0623E+00	-2.1246E-03	7.1053E-02	1.1677E-03	7.0314E-05
4.2635E+00	1.0623E+00	-3.3640E-03	8.2429E-02	2.0449E-03	1.5048E-04
4.2635E+00	1.0623E+00	-4.2493E-03	9.2109E-02	2.8182E-03	2.3503E-04
4.2635E+00	1.0623E+00	-5.3116E-03	1.1410E-01	4.3291E-03	3.2343E-04
4.2635E+00	1.0623E+00	-6.3739E-03	1.3256E-01	5.5753E-03	4.2295E-04
4.2635E+00	1.0623E+00	-7.7704E-03	1.5359E-01	6.4367E-03	5.3527E-04
4.2635E+00	1.0623E+00	-9.5609E-03	1.8027E-01	7.0471E-03	6.2902E-04
4.2635E+00	1.0623E+00	-1.1686E-02	2.0261E-01	7.2907E-03	7.4935E-04
4.2635E+00	1.0623E+00	-1.4518E-02	2.2443E-01	7.4649E-03	8.2724E-04
4.2635E+00	1.0623E+00	-1.7705E-02	2.5255E-01	7.5136E-03	9.1700E-04
4.2635E+00	1.0623E+00	-2.1955E-02	2.8793E-01	7.3641E-03	1.0430E-03
4.2635E+00	1.0623E+00	-2.6912E-02	3.1830E-01	7.4696E-03	1.1563E-03
4.2635E+00	1.0623E+00	-3.2932E-02	3.5066E-01	7.4248E-03	1.2887E-03
4.2635E+00	1.0623E+00	-4.0722E-02	3.9240E-01	7.4664E-03	1.5090E-03
4.2635E+00	1.0623E+00	-4.9929E-02	4.3936E-01	7.4353E-03	1.7296E-03
4.2635E+00	1.0623E+00	-6.1261E-02	4.9459E-01	7.0636E-03	1.7179E-03
4.2635E+00	1.0623E+00	-7.5071E-02	5.5112E-01	6.6742E-03	1.5514E-03
4.2635E+00	1.0623E+00	-9.2066E-02	6.1953E-01	5.8512E-03	1.3253E-03
4.2635E+00	1.0623E+00	-1.1261E-01	6.7455E-01	4.6148E-03	1.1945E-03
4.2635E+00	1.0623E+00	-1.3810E-01	7.7792E-01	2.9533E-03	1.0030E-03
4.2635E+00	1.0623E+00	-1.6962E-01	8.5433E-01	1.1910E-03	5.1567E-04
4.2635E+00	1.0623E+00	-2.0796E-01	8.9203E-01	1.3430E-04	1.1514E-04
4.2635E+00	1.0623E+00	-2.5496E-01	8.9949E-01	4.2026E-05	1.1049E-07
4.2635E+00	1.0623E+00	-3.1374E-01	9.0949E-01	4.6179E-05	1.1003E-07
4.2635E+00	1.0623E+00	-3.8350E-01	9.1874E-01	3.7831E-05	1.1221E-07
4.2635E+00	1.0623E+00	-4.6990E-01	9.2917E-01	3.8550E-05	9.1410E-08
4.2635E+00	1.0623E+00	-5.7649E-01	9.3762E-01	4.4016E-05	1.3654E-07
4.2635E+00	1.0623E+00	-7.0644E-01	9.7567E-01	3.7335E-05	1.0495E-07
4.2635E+00	1.0623E+00	-8.6755E-01	9.8794E-01	3.7925E-05	1.1571E-07
4.2635E+00	1.0623E+00	-1.0623E+00	9.9555E-01	4.4535E-05	1.4792E-07

Table B.1-2 Hot-wire velocity measurements at the trailing edge,
no trip, Y / T = 1.062

File E462170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.120746

viscosity (meters squared per second) = 1.634278E-05

Atmospheric pressure (Pascals) = 95575

Velocity of undisturbed free stream (Uref, in m/s) = 27.71325

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089105E-03

Estimated momentum thickness Reynolds number = 6934.096

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.5935E+00	0.0000E+00	1.0672E-01	2.5905E-03	1.4293E-04
4.2635E+00	1.5935E+00	-1.0623E-03	1.0587E-01	2.5054E-03	1.3373E-04
4.2635E+00	1.5935E+00	-2.1246E-03	1.0699E-01	2.6474E-03	1.5500E-04
4.2635E+00	1.5935E+00	-3.1870E-03	1.1065E-01	2.9205E-03	1.7198E-04
4.2635E+00	1.5935E+00	-4.2493E-03	1.1445E-01	3.1670E-03	1.9297E-04
4.2635E+00	1.5935E+00	-5.3116E-03	1.2149E-01	3.8013E-03	2.5334E-04
4.2635E+00	1.5935E+00	-6.3739E-03	1.2753E-01	4.2466E-03	2.8379E-04
4.2635E+00	1.5935E+00	-7.7904E-03	1.3891E-01	4.9729E-03	3.2991E-04
4.2635E+00	1.5935E+00	-9.5609E-03	1.6456E-01	6.3710E-03	3.5527E-04
4.2635E+00	1.5935E+00	-1.1686E-02	1.9850E-01	7.1580E-03	3.9771E-04
4.2635E+00	1.5935E+00	-1.4518E-02	2.1795E-01	7.6451E-03	2.2847E-04
4.2635E+00	1.5935E+00	-1.7705E-02	2.4588E-01	7.5424E-03	1.6663E-04
4.2635E+00	1.5935E+00	-2.2132E-02	2.7505E-01	7.3441E-03	1.6183E-04
4.2635E+00	1.5935E+00	-2.6912E-02	3.1032E-01	7.1964E-03	9.2178E-05
4.2635E+00	1.5935E+00	-3.2932E-02	3.4274E-01	7.3853E-03	1.1742E-04
4.2635E+00	1.5935E+00	-4.0722E-02	3.8294E-01	7.1772E-03	7.1246E-05
4.2635E+00	1.5935E+00	-4.9929E-02	4.2928E-01	7.2753E-03	4.0135E-05
4.2635E+00	1.5935E+00	-7.5071E-02	4.8319E-01	7.0990E-03	1.6539E-05
4.2635E+00	1.5935E+00	-7.5071E-02	5.4290E-01	6.4125E-03	-5.1037E-05
4.2635E+00	1.5935E+00	-9.2068E-02	6.0964E-01	5.2542E-03	-1.0529E-04
4.2635E+00	1.5935E+00	-1.1261E-01	6.8526E-01	4.3490E-03	-1.1528E-04
4.2635E+00	1.5935E+00	-1.3810E-01	7.6792E-01	2.9994E-03	-9.5436E-05
4.2635E+00	1.5935E+00	-1.6997E-01	8.4299E-01	1.1812E-03	-5.3842E-05
4.2635E+00	1.5935E+00	-2.0922E-01	8.8476E-01	1.2484E-04	-1.3079E-06
4.2635E+00	1.5935E+00	-2.5567E-01	8.9474E-01	4.4495E-05	1.0521E-07
4.2635E+00	1.5935E+00	-3.1303E-01	9.0492E-01	3.7497E-05	9.3573E-08
4.2635E+00	1.5935E+00	-3.8421E-01	9.1349E-01	3.4342E-05	9.7975E-08
4.2635E+00	1.5935E+00	-4.7025E-01	9.2402E-01	3.7506E-05	1.0393E-07
4.2635E+00	1.5935E+00	-5.7613E-01	9.3253E-01	3.4836E-05	9.7780E-08
4.2635E+00	1.5935E+00	-7.0644E-01	9.4204E-01	3.5306E-05	1.1030E-07
4.2635E+00	1.5935E+00	-9.5615E-01	9.5463E-01	3.8021E-05	1.6621E-07
4.2635E+00	1.5935E+00	-1.0623E+00	9.6224E-01	3.4027E-05	1.1117E-07

Table B.1-3 Hot-wire velocity measurements at the trailing edge, no trip, Y / T = 1.594

File E461170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.121215

viscosity (meters squared per second) = 1.433594E-05

Atmospheric pressure (Pascals) = 95815

Velocity of undisturbed free stream (Uref, in m/s) = 27.72874

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08E-03

Estimated momentum thickness Reynolds number = 6940.1

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.1246E+00	0.0000E+00	5.1078E-02	5.0251E-04	1.3959E-05
4.2635E+00	2.1246E+00	-1.0623E-03	5.1405E-02	5.1404E-04	1.4096E-05
4.2635E+00	2.1246E+00	-2.1246E-03	5.0997E-02	5.1148E-04	1.5193E-05
4.2635E+00	2.1246E+00	-3.1870E-03	4.9915E-02	5.0655E-04	1.7373E-05
4.2635E+00	2.1246E+00	-4.2493E-03	4.9955E-02	5.5337E-04	2.1673E-05
4.2635E+00	2.1246E+00	-5.3116E-03	5.1958E-02	6.9942E-04	3.6329E-05
4.2635E+00	2.1246E+00	-6.3739E-03	5.9802E-02	1.1556E-03	7.7259E-05
4.2635E+00	2.1246E+00	-7.7904E-03	7.3145E-02	1.9732E-03	1.4215E-04
4.2635E+00	2.1246E+00	-9.5009E-03	1.0748E-01	4.1119E-03	2.9401E-04
4.2635E+00	2.1246E+00	-1.1666E-02	1.5978E-01	6.1505E-03	2.9963E-04
4.2635E+00	2.1246E+00	-1.4518E-02	2.0011E-01	6.9239E-03	2.7086E-04
4.2635E+00	2.1246E+00	-1.7705E-02	2.3479E-01	7.0600E-03	1.9300E-04
4.2635E+00	2.1246E+00	-2.1955E-02	2.6791E-01	7.1566E-03	1.3645E-04
4.2635E+00	2.1246E+00	-2.6912E-02	3.0348E-01	7.2710E-03	1.4166E-04
4.2635E+00	2.1246E+00	-3.2932E-02	3.3588E-01	7.4163E-03	1.3537E-04
4.2635E+00	2.1246E+00	-4.0722E-02	3.7942E-01	7.3734E-03	1.0332E-04
4.2635E+00	2.1246E+00	-4.9929E-02	4.2040E-01	7.3536E-03	4.4062E-05
4.2635E+00	2.1246E+00	-6.1261E-02	4.7479E-01	7.1659E-03	2.1775E-05
4.2635E+00	2.1246E+00	-7.5071E-02	5.3391E-01	6.8257E-03	-3.7527E-05
4.2635E+00	2.1246E+00	-9.2068E-02	6.0217E-01	6.9587E-03	-8.8562E-05
4.2635E+00	2.1246E+00	-1.1261E-01	6.7693E-01	6.8902E-03	-1.1212E-04
4.2635E+00	2.1246E+00	-1.3910E-01	7.5721E-01	3.3371E-03	-9.1755E-05
4.2635E+00	2.1246E+00	-2.0796E-01	8.9377E-01	2.4903E-04	-7.9520E-06
4.2635E+00	2.1246E+00	-2.5496E-01	9.0394E-01	4.9558E-05	1.4508E-07
4.2635E+00	2.1246E+00	-3.1303E-01	9.1667E-01	3.8339E-05	7.4331E-08
4.2635E+00	2.1246E+00	-3.8357E-01	9.2598E-01	3.6903E-05	9.8396E-08
4.2635E+00	2.1246E+00	-4.7061E-01	9.3483E-01	4.4156E-05	1.1399E-07
4.2635E+00	2.1246E+00	-5.7684E-01	9.4561E-01	4.0123E-05	1.1399E-07
4.2635E+00	2.1246E+00	-7.0680E-01	9.5033E-01	3.4562E-05	1.0660E-07
4.2635E+00	2.1246E+00	-8.6615E-01	9.6152E-01	4.3950E-05	9.8667E-08
4.2635E+00	2.1246E+00	-1.0623E+00	9.6941E-01	4.1695E-05	1.0170E-07

Table B.1-4 Hot-wire velocity measurements at the trailing edge,
no trip, Y / T = 2.125

File E460170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.121215

viscosity (meters squared per second) = 1.633594E-05

Atmospheric pressure (Pascals) = 95615

Velocity of undisturbed free stream (Uref. in m/s) = 27.73238

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09854E-03

Estimated momentum thickness Reynolds number = 6949.627

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.6558E+00	0.0000E+00	6.1422E-02	6.4790E-04	1.8336E-05
4.2635E+00	2.6558E+00	1.0623E-03	6.0135E-02	6.6453E-04	2.2585E-05
4.2635E+00	2.6558E+00	2.1246E-03	5.8923E-02	7.3221E-04	3.1928E-05
4.2635E+00	2.6558E+00	3.1870E-03	6.4074E-02	1.0740E-03	6.9108E-05
4.2635E+00	2.6558E+00	4.2493E-03	7.8993E-02	1.9885E-03	1.5286E-04
4.2635E+00	2.6558E+00	5.6657E-03	1.0788E-01	3.9315E-03	3.2663E-04
4.2635E+00	2.6558E+00	6.3739E-03	1.3524E-01	5.6750E-03	4.1917E-04
4.2635E+00	2.6558E+00	7.7904E-03	1.7048E-01	7.3698E-03	4.6993E-04
4.2635E+00	2.6558E+00	9.5609E-03	2.1237E-01	8.6246E-03	3.9527E-04
4.2635E+00	2.6558E+00	1.1686E-02	2.4720E-01	8.9221E-03	2.7034E-04
4.2635E+00	2.6558E+00	1.4518E-02	2.8732E-01	8.5587E-03	2.0383E-04
4.2635E+00	2.6558E+00	1.7705E-02	3.2366E-01	8.7278E-03	1.6444E-04
4.2635E+00	2.6558E+00	2.1955E-02	3.6144E-01	8.5914E-03	1.3437E-04
4.2635E+00	2.6558E+00	2.6912E-02	3.9979E-01	8.6262E-03	1.1998E-04
4.2635E+00	2.6558E+00	3.2932E-02	4.4666E-01	9.7890E-03	6.3523E-05
4.2635E+00	2.6558E+00	4.0722E-02	4.9224E-01	8.3352E-03	9.2566E-06
4.2635E+00	2.6558E+00	5.0283E-02	5.5677E-01	7.9386E-03	-7.7786E-05
4.2635E+00	2.6558E+00	6.1615E-02	6.2209E-01	7.1238E-03	-9.6242E-05
4.2635E+00	2.6558E+00	7.5071E-02	6.8875E-01	5.7434E-03	-1.4085E-04
4.2635E+00	2.6558E+00	9.2068E-02	7.2953E-01	5.1291E-03	-1.6314E-04
4.2635E+00	2.6558E+00	1.1261E-01	8.2872E-01	2.5566E-03	-1.0594E-04
4.2635E+00	2.6558E+00	1.3846E-01	8.8341E-01	8.9597E-04	-2.3534E-05
4.2635E+00	2.6558E+00	1.6962E-01	9.0190E-01	4.5504E-04	4.3975E-06
4.2635E+00	2.6558E+00	2.0822E-01	9.1128E-01	4.6095E-04	-2.5214E-06
4.2635E+00	2.6558E+00	2.5531E-01	9.1890E-01	4.4865E-04	-1.2754E-06
4.2635E+00	2.6558E+00	3.1268E-01	9.2457E-01	4.2699E-04	-1.9547E-06
4.2635E+00	2.6558E+00	3.8314E-01	9.3247E-01	3.7736E-04	4.5477E-06
4.2635E+00	2.6558E+00	4.7025E-01	9.3755E-01	2.7503E-04	-7.5914E-07
4.2635E+00	2.6558E+00	5.7684E-01	9.4363E-01	1.3769E-04	4.3713E-07
4.2635E+00	2.6558E+00	7.0786E-01	9.4743E-01	6.7875E-05	-3.6554E-07
4.2635E+00	2.6558E+00	8.6615E-01	9.5524E-01	4.2986E-05	1.3090E-07
4.2635E+00	2.6558E+00	1.0630E+00	9.6263E-01	3.7854E-05	1.1351E-07
4.2635E+00	2.6558E+00	0.0000E+00	6.1104E-02	6.8466E-04	2.1696E-05
4.2635E+00	2.6558E+00	-1.0623E-03	6.3189E-02	7.2135E-04	2.0954E-05
4.2635E+00	2.6558E+00	-2.3017E-03	6.5191E-02	7.1066E-04	2.0050E-05
4.2635E+00	2.6558E+00	-3.3640E-03	6.5444E-02	7.2556E-04	2.3110E-05
4.2635E+00	2.6558E+00	-4.2493E-03	6.4983E-02	7.4775E-04	2.5642E-05
4.2635E+00	2.6558E+00	-5.6657E-03	6.7363E-02	9.6089E-04	5.0703E-05
4.2635E+00	2.6558E+00	-6.3739E-03	7.0703E-02	1.2317E-03	8.0350E-05
4.2635E+00	2.6558E+00	-7.7904E-03	8.9187E-02	2.3539E-03	1.7914E-04
4.2635E+00	2.6558E+00	-9.5609E-03	1.3291E-01	5.2722E-03	3.7977E-04
4.2635E+00	2.6558E+00	-1.1686E-02	2.0153E-01	8.1030E-03	3.8175E-04
4.2635E+00	2.6558E+00	-1.4518E-02	2.6891E-01	9.1134E-03	2.2295E-04
4.2635E+00	2.6558E+00	-1.7705E-02	3.1259E-01	8.9519E-03	1.5239E-04
4.2635E+00	2.6558E+00	-2.1232E-02	3.5306E-01	8.5904E-03	1.4137E-04
4.2635E+00	2.6558E+00	-2.6912E-02	3.9912E-01	8.4202E-03	9.7630E-05
4.2635E+00	2.6558E+00	-3.2932E-02	4.4179E-01	8.2699E-03	7.1210E-05
4.2635E+00	2.6558E+00	-4.0722E-02	4.9467E-01	8.0765E-03	1.8729E-05
4.2635E+00	2.6558E+00	-4.9929E-02	5.5329E-01	7.5959E-03	-2.9582E-05
4.2635E+00	2.6558E+00	-6.1261E-02	6.1806E-01	7.0595E-03	-7.7315E-05
4.2635E+00	2.6558E+00	-7.5071E-02	6.8603E-01	5.7176E-03	-1.3223E-04
4.2635E+00	2.6558E+00	-9.2068E-02	7.6074E-01	4.2360E-03	-1.5909E-04
4.2635E+00	2.6558E+00	-1.1261E-01	8.2754E-01	2.4940E-03	-1.2318E-04
4.2635E+00	2.6558E+00	-1.3810E-01	8.7652E-01	9.0876E-04	-2.9903E-05
4.2635E+00	2.6558E+00	-1.6962E-01	8.9676E-01	4.7685E-04	2.0841E-06
4.2635E+00	2.6558E+00	-2.0822E-01	9.0545E-01	4.7963E-04	1.8785E-06
4.2635E+00	2.6558E+00	-2.5496E-01	9.1436E-01	4.7055E-04	-5.8290E-06
4.2635E+00	2.6558E+00	-3.1339E-01	9.2308E-01	4.3265E-04	5.5302E-06
4.2635E+00	2.6558E+00	-3.8314E-01	9.3245E-01	3.6136E-04	1.7461E-06
4.2635E+00	2.6558E+00	-4.6990E-01	9.3948E-01	2.8787E-04	-1.3264E-06
4.2635E+00	2.6558E+00	-5.7613E-01	9.4788E-01	1.4554E-04	1.7227E-06
4.2635E+00	2.6558E+00	-7.0680E-01	9.5534E-01	7.2452E-05	5.9037E-07
4.2635E+00	2.6558E+00	-8.6686E-01	9.6363E-01	4.5632E-05	1.5806E-07
4.2635E+00	2.6558E+00	-1.0623E+00	9.7342E-01	4.0150E-05	1.0829E-07

Table B.1-5 Hot-wire velocity measurements at the trailing edge, no trip, Y / T = 2.656

File E47b170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22

Density (kilograms per meter cubed) = 1.1308E2

Viscosity (meters squared per second) = 1.611206E-05

Atmospheric pressure (Pascals) = 95790

Velocity of undisturbed free stream (Uref, in m/s) = 27.7139

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.099065E-03

Estimated momentum thickness Reynolds number = 7033.518

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	5.3116E-01	0.0000E+00	7.0924E-02	9.2594E-04	5.4161E-05
4.2635E+00	5.3116E-01	-1.0e-23E-03	7.1603E-02	9.6177E-04	5.3342E-05
4.2635E+00	5.3116E-01	-2.1446E-03	7.4062E-02	1.1656E-03	7.3440E-05
4.2635E+00	5.3116E-01	-3.1670E-03	7.8776E-02	1.4837E-03	1.0215E-04
4.2635E+00	5.3116E-01	-4.2493E-03	8.7458E-02	2.1447E-03	1.6437E-04
4.2635E+00	5.3116E-01	-5.3116E-03	1.0009E-01	3.1120E-03	2.5492E-04
4.2635E+00	5.3116E-01	-6.3739E-03	1.1332E-01	4.0441E-03	3.3158E-04
4.2635E+00	5.3116E-01	-7.7904E-03	1.3163E-01	5.1223E-03	3.7119E-04
4.2635E+00	5.3116E-01	-9.7390E-03	1.6065E-01	6.4004E-03	3.5926E-04
4.2635E+00	5.3116E-01	-1.1696E-02	1.9150E-01	7.2005E-03	2.9363E-04
4.2635E+00	5.3116E-01	-1.4516E-02	2.3302E-01	7.2311E-03	1.7415E-04
4.2635E+00	5.3116E-01	-1.7705E-02	2.6635E-01	7.2537E-03	1.4959E-04
4.2635E+00	5.3116E-01	-2.1955E-02	2.9469E-01	7.3560E-03	1.3672E-04
4.2635E+00	5.3116E-01	-2.6912E-02	3.3215E-01	7.4139E-03	1.2663E-04
4.2635E+00	5.3116E-01	-3.2932E-02	3.6529E-01	7.3373E-03	1.1793E-04
4.2635E+00	5.3116E-01	-4.0722E-02	4.1310E-01	7.4699E-03	7.4622E-05
4.2635E+00	5.3116E-01	-4.9926E-02	4.5601E-01	7.3318E-03	4.2469E-05
4.2635E+00	5.3116E-01	-6.2523E-02	5.1984E-01	7.2189E-03	-1.9735E-07
4.2635E+00	5.3116E-01	-7.5071E-02	5.8286E-01	6.5614E-03	-8.2513E-05
4.2635E+00	5.3116E-01	-9.2066E-02	6.5971E-01	5.8694E-03	-1.0974E-04
4.2635E+00	5.3116E-01	-1.1261E-01	7.4413E-01	4.3366E-03	-1.5394E-04
4.2635E+00	5.3116E-01	-1.3810E-01	8.3499E-01	2.0336E-03	-1.0669E-04
4.2635E+00	5.3116E-01	-1.6979E-01	8.8362E-01	2.7079E-04	-5.3007E-06
4.2635E+00	5.3116E-01	-2.0786E-01	8.9618E-01	1.2264E-04	-5.0330E-09
4.2635E+00	5.3116E-01	-2.5496E-01	9.0300E-01	1.1650E-04	-3.9546E-07
4.2635E+00	5.3116E-01	-3.1266E-01	9.0998E-01	1.4928E-04	-2.7573E-06
4.2635E+00	5.3116E-01	-3.8714E-01	9.1985E-01	2.0870E-04	-6.2819E-06
4.2635E+00	5.3116E-01	-4.6990E-01	9.2697E-01	2.7839E-04	-1.0225E-05
4.2635E+00	5.3116E-01	-5.7617E-01	9.3829E-01	3.3626E-04	-1.3561E-05
4.2635E+00	5.3116E-01	-7.0659E-01	9.4592E-01	4.9332E-04	-2.2870E-05
4.2635E+00	5.3116E-01	-8.6550E-01	9.4924E-01	7.9465E-04	-4.2439E-05
4.2635E+00	5.3116E-01	-1.0627E+00	9.5088E-01	9.7936E-04	-5.0454E-05

Table B.1-6 Hot-wire velocity measurements at the trailing edge,
220-grade sandpaper trip, Y / T = .531

File E472170 .RES

velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.129049

viscosity (meters squared per second) = 1.615253E-05

Atmospheric pressure (Pascals) = 95550

Velocity of undisturbed free stream (Uref, in m/s) = 27.73025

Estimated momentum thickness at Y/T = -2.14, Z/T=0 (z) = 4.088503E-03

Estimated momentum thickness Reynolds number = 7019.208

Y/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.0623E+00	0.0000E+00	9.5449E-02	2.1981E-03	1.4207E-04
4.2635E+00	1.0623E+00	-1.4603E-03	9.2702E-02	2.0273E-03	1.3601E-04
4.2635E+00	1.0623E+00	-2.3017E-03	9.2033E-02	1.9455E-03	1.1693E-04
4.2635E+00	1.0623E+00	-3.1870E-03	9.3047E-02	2.0295E-03	1.2802E-04
4.2635E+00	1.0623E+00	-4.2493E-03	9.6563E-02	2.3332E-03	1.6644E-04
4.2635E+00	1.0623E+00	-5.3116E-03	1.0234E-01	2.7881E-03	2.0488E-04
4.2635E+00	1.0623E+00	-6.3739E-03	1.0917E-01	3.3447E-03	2.5613E-04
4.2635E+00	1.0623E+00	-7.7904E-03	1.1882E-01	4.0309E-03	2.9131E-04
4.2635E+00	1.0623E+00	-9.5609E-03	1.3513E-01	5.0947E-03	3.5346E-04
4.2635E+00	1.0623E+00	-1.1686E-02	1.5968E-01	6.0044E-03	3.1669E-04
4.2635E+00	1.0623E+00	-1.4518E-02	1.9933E-01	6.8427E-03	2.1158E-04
4.2635E+00	1.0623E+00	-1.7705E-02	2.2891E-01	7.0668E-03	1.9932E-04
4.2635E+00	1.0623E+00	-2.1955E-02	2.5786E-01	6.7687E-03	1.3227E-04
4.2635E+00	1.0623E+00	-2.6912E-02	2.9065E-01	6.6562E-03	1.1025E-04
4.2635E+00	1.0623E+00	-3.2932E-02	3.2834E-01	6.8153E-03	1.2596E-04
4.2635E+00	1.0623E+00	-4.0722E-02	3.6966E-01	6.9839E-03	1.0462E-04
4.2635E+00	1.0623E+00	-4.9929E-02	4.1898E-01	6.8504E-03	5.5896E-05
4.2635E+00	1.0623E+00	-6.1261E-02	4.7745E-01	6.8184E-03	1.8618E-05
4.2635E+00	1.0623E+00	-7.5071E-02	5.4293E-01	6.4594E-03	-4.3818E-05
4.2635E+00	1.0623E+00	-9.2068E-02	6.1952E-01	5.6180E-03	-9.4106E-05
4.2635E+00	1.0623E+00	-1.1261E-01	7.0416E-01	4.4536E-03	-1.3792E-04
4.2635E+00	1.0623E+00	-1.3810E-01	8.0143E-01	2.3365E-03	-1.0513E-04
4.2635E+00	1.0623E+00	-1.6962E-01	8.6925E-01	3.2962E-04	-1.2522E-05
4.2635E+00	1.0623E+00	-2.0786E-01	8.8088E-01	4.8974E-05	-8.1271E-08
4.2635E+00	1.0623E+00	-2.5531E-01	8.9039E-01	3.7967E-05	6.6906E-08
4.2635E+00	1.0623E+00	-3.1268E-01	9.0174E-01	3.4014E-05	5.5452E-08
4.2635E+00	1.0623E+00	-3.8314E-01	9.0878E-01	3.2452E-05	5.8226E-08
4.2635E+00	1.0623E+00	-4.6990E-01	9.1928E-01	3.6402E-05	7.3016E-08
4.2635E+00	1.0623E+00	-5.7613E-01	9.2849E-01	3.3159E-05	7.9205E-08
4.2635E+00	1.0623E+00	-7.0644E-01	9.3801E-01	3.5736E-05	7.4491E-08
4.2635E+00	1.0623E+00	-8.6579E-01	9.5087E-01	4.5277E-05	9.1138E-08
4.2635E+00	1.0623E+00	-1.0627E+00	9.5928E-01	3.1326E-05	8.9219E-08

Table B.1-7 Hot-wire velocity measurements at the trailing edge,
220-grade sandpaper trip, Y / T = 1.062

File E471170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.128049

viscosity (meters squared per second) = 1.615253E-05

Atmospheric pressure (Pascals) = 95550

Velocity of undisturbed free stream (Uref. in m/s) = 27.70677

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.0E9236E-03

Estimated momentum thickness Reynolds number = 7014.859

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.5935E+00	0.0000E+00	7.3512E-02	1.0625E-03	5.9979E-05
4.2635E+00	1.5935E+00	-1.0623E-03	7.3522E-02	1.0635E-03	6.0446E-05
4.2635E+00	1.5935E+00	-2.1246E-03	7.5757E-02	1.1693E-03	6.8700E-05
4.2635E+00	1.5935E+00	-3.1870E-03	7.9656E-02	1.5360E-03	1.0939E-04
4.2635E+00	1.5935E+00	-4.2493E-03	8.4179E-02	1.8815E-03	1.3431E-04
4.2635E+00	1.5935E+00	-5.3116E-03	9.9404E-02	2.9969E-03	2.4431E-04
4.2635E+00	1.5935E+00	-6.3739E-03	1.1358E-01	3.9987E-03	3.1151E-04
4.2635E+00	1.5935E+00	-7.7904E-03	1.3839E-01	5.4253E-03	3.6098E-04
4.2635E+00	1.5935E+00	-9.5609E-03	1.6507E-01	6.3549E-03	3.4276E-04
4.2635E+00	1.5935E+00	-1.1686E-02	1.9377E-01	6.9273E-03	2.5331E-04
4.2635E+00	1.5935E+00	-1.4519E-02	2.2151E-01	6.8430E-03	1.6547E-04
4.2635E+00	1.5935E+00	-1.7705E-02	2.5098E-01	6.9507E-03	1.5557E-04
4.2635E+00	1.5935E+00	-2.1955E-02	2.8550E-01	6.7622E-03	1.1645E-04
4.2635E+00	1.5935E+00	-2.6912E-02	3.1469E-01	6.8110E-03	1.1256E-04
4.2635E+00	1.5935E+00	-3.2932E-02	3.4864E-01	6.9213E-03	9.7503E-05
4.2635E+00	1.5935E+00	-4.0722E-02	3.9250E-01	6.9183E-03	6.7612E-05
4.2635E+00	1.5935E+00	-4.9929E-02	4.3696E-01	6.8552E-03	2.9648E-05
4.2635E+00	1.5935E+00	-6.1261E-02	4.8901E-01	6.5841E-03	1.2715E-05
4.2635E+00	1.5935E+00	-7.5071E-02	5.5193E-01	6.2126E-03	-5.9330E-05
4.2635E+00	1.5935E+00	-9.2068E-02	6.2352E-01	5.1522E-03	-9.6203E-05
4.2635E+00	1.5935E+00	-1.1261E-01	7.1117E-01	4.2361E-03	-1.1015E-04
4.2635E+00	1.5935E+00	-1.3810E-01	7.9377E-01	2.5391E-03	-1.0577E-04
4.2635E+00	1.5935E+00	-1.6962E-01	8.6628E-01	4.9795E-04	-2.2181E-05
4.2635E+00	1.5935E+00	-2.0786E-01	8.8437E-01	5.8435E-05	1.3844E-07
4.2635E+00	1.5935E+00	-2.5496E-01	8.9521E-01	3.5265E-05	5.9322E-08
4.2635E+00	1.5935E+00	-3.1268E-01	9.0246E-01	2.9381E-05	5.3992E-08
4.2635E+00	1.5935E+00	-3.8314E-01	9.0979E-01	4.1723E-05	4.8552E-08
4.2635E+00	1.5935E+00	-4.6990E-01	9.2260E-01	3.2800E-05	7.7977E-08
4.2635E+00	1.5935E+00	-5.7613E-01	9.3144E-01	3.2122E-05	7.3768E-08
4.2635E+00	1.5935E+00	-7.0680E-01	9.3928E-01	3.1143E-05	6.7607E-08
4.2635E+00	1.5935E+00	-8.6615E-01	9.4949E-01	3.2949E-05	6.0219E-08
4.2635E+00	1.5935E+00	-1.0630E+00	9.5375E-01	3.7163E-05	7.4730E-08

Table B.1-8 Hot-wire velocity measurements at the trailing edge,
220-grade sandpaper trip, Y / T = 1.594

File E474170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.126049

viscosity (meters squared per second) = 1.615253E-05

Atmospheric pressure (Pascals) = 95550

Velocity of undisturbed free stream (Uref, in m/s) = 27.74701

Estimated momentum thickness at X/T = -2.146, Z/T=0 (e) = 4.088109E-03

Est.motec momentum thickness Reynolds number = 7022.602

Y/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.1246E+00	0.0000E+00	4.3218E-02	3.4377E-04	7.6355E-06
4.2635E+00	2.1246E+00	-1.0623E-03	4.3800E-02	3.5957E-04	8.7798E-06
4.2635E+00	2.1246E+00	-2.1246E-03	4.3152E-02	3.4243E-04	7.9247E-06
4.2635E+00	2.1246E+00	-3.1670E-03	4.2224E-02	3.4496E-04	8.9961E-06
4.2635E+00	2.1246E+00	-4.2493E-03	4.1456E-02	3.2171E-04	9.1519E-06
4.2635E+00	2.1246E+00	-5.3116E-03	4.0485E-02	2.9659E-04	7.4678E-06
4.2635E+00	2.1246E+00	-6.3739E-03	4.1994E-02	3.4857E-04	1.1912E-05
4.2635E+00	2.1246E+00	-7.7904E-03	4.8891E-02	6.3469E-04	3.7301E-05
4.2635E+00	2.1246E+00	-9.5609E-03	7.7865E-02	2.1269E-03	1.4769E-04
4.2635E+00	2.1246E+00	-1.1686E-02	1.3248E-01	4.9601E-03	2.9851E-04
4.2635E+00	2.1246E+00	-1.4518E-02	1.8562E-01	6.2098E-03	2.4406E-04
4.2635E+00	2.1246E+00	-1.7705E-02	2.2525E-01	6.1876E-03	1.4927E-04
4.2635E+00	2.1246E+00	-2.1955E-02	2.5931E-01	6.3898E-03	1.3383E-04
4.2635E+00	2.1246E+00	-2.6912E-02	2.9475E-01	6.5178E-03	1.3241E-04
4.2635E+00	2.1246E+00	-3.2932E-02	3.2844E-01	6.6176E-03	1.1376E-04
4.2635E+00	2.1246E+00	-4.0722E-02	3.7181E-01	6.5572E-03	9.0885E-05
4.2635E+00	2.1246E+00	-4.9929E-02	4.1664E-01	6.4737E-03	5.4621E-05
4.2635E+00	2.1246E+00	-6.1261E-02	4.7352E-01	6.5202E-03	3.8910E-06
4.2635E+00	2.1246E+00	-7.5071E-02	5.3616E-01	6.2401E-03	-4.6336E-05
4.2635E+00	2.1246E+00	-9.2422E-02	6.1471E-01	5.4145E-03	-6.0027E-05
4.2635E+00	2.1246E+00	-1.1261E-01	6.9774E-01	4.4292E-03	-9.4521E-05
4.2635E+00	2.1246E+00	-1.3810E-01	7.9161E-01	2.7684E-03	-9.3727E-05
4.2635E+00	2.1246E+00	-1.6962E-01	8.7294E-01	6.1562E-04	-2.9726E-05
4.2635E+00	2.1246E+00	-2.0786E-01	8.9587E-01	5.7519E-05	1.1165E-07
4.2635E+00	2.1246E+00	-2.5531E-01	9.0168E-01	4.0097E-05	3.8364E-08
4.2635E+00	2.1246E+00	-3.1339E-01	9.1131E-01	3.2972E-05	4.4223E-08
4.2635E+00	2.1246E+00	-3.8314E-01	9.2050E-01	3.4432E-05	5.5830E-08
4.2635E+00	2.1246E+00	-4.6990E-01	9.3058E-01	3.2515E-05	5.9731E-08
4.2635E+00	2.1246E+00	-5.7649E-01	9.4086E-01	3.4016E-05	5.9853E-08
4.2635E+00	2.1246E+00	-7.0659E-01	9.4897E-01	3.1376E-05	5.0499E-08
4.2635E+00	2.1246E+00	-8.6615E-01	9.5660E-01	3.1242E-05	5.2503E-08
4.2635E+00	2.1246E+00	-1.0634E+00	9.6365E-01	3.0938E-05	5.3933E-08

Table B.1-9 Hot-wire velocity measurements at the trailing edge,
220-grade sandpaper trip, Y / T = 2.125

File E475170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.128349

viscosity (meters squared per second) = 1.615253E-05

Atmospheric pressure (Pascals) = 95550

Velocity of undisturbed free stream (Uref. in m/s) = 27.70692

Estimated momentum thickness at X/T = -2.145, Z/T=0 (m) = 4.089495E-03

Estimated momentum thickness Reynolds number = 7013.086

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.6558E+00	0.0000E+00	7.1602E-02	7.7597E-04	2.6494E-05
4.2635E+00	2.6558E+00	-1.0623E-03	7.2363E-02	7.6367E-04	2.2847E-05
4.2635E+00	2.6558E+00	-2.1246E-03	7.2416E-02	7.7091E-04	2.3452E-05
4.2635E+00	2.6558E+00	-3.1870E-03	7.2027E-02	8.1304E-04	2.9231E-05
4.2635E+00	2.6558E+00	-4.2493E-03	7.1180E-02	8.3129E-04	3.3017E-05
4.2635E+00	2.6558E+00	-5.3116E-03	7.3178E-02	1.1109E-03	6.3539E-05
4.2635E+00	2.6558E+00	-6.3739E-03	8.0433E-02	1.6908E-03	1.2758E-04
4.2635E+00	2.6558E+00	-7.7904E-03	9.7531E-02	2.8222E-03	2.2792E-04
4.2635E+00	2.6558E+00	-9.5609E-03	1.3657E-01	5.6341E-03	4.5949E-04
4.2635E+00	2.6558E+00	-1.1686E-02	1.8187E-01	7.9266E-03	4.6139E-04
4.2635E+00	2.6558E+00	-1.4518E-02	2.3909E-01	9.0162E-03	3.1865E-04
4.2635E+00	2.6558E+00	-1.7705E-02	2.9215E-01	9.0284E-03	2.4703E-04
4.2635E+00	2.6558E+00	-2.1955E-02	3.3586E-01	8.8826E-03	1.7128E-04
4.2635E+00	2.6558E+00	-2.6912E-02	3.7521E-01	8.9728E-03	1.5682E-04
4.2635E+00	2.6558E+00	-3.2932E-02	4.1907E-01	8.5953E-03	9.9581E-05
4.2635E+00	2.6558E+00	-4.0722E-02	4.6902E-01	8.6443E-03	4.3123E-05
4.2635E+00	2.6558E+00	-4.9929E-02	5.2517E-01	8.1047E-03	2.4667E-05
4.2635E+00	2.6558E+00	-6.1615E-02	5.9988E-01	7.5721E-03	-7.4465E-05
4.2635E+00	2.6558E+00	-7.5971E-02	6.5543E-01	6.6782E-03	-1.1656E-04
4.2635E+00	2.6558E+00	-9.2245E-02	7.3211E-01	5.0363E-03	-1.4602E-04
4.2635E+00	2.6558E+00	-1.1241E-01	8.0718E-01	3.1977E-03	-1.2869E-04
4.2635E+00	2.6558E+00	-1.3810E-01	8.7441E-01	1.2818E-03	-3.9194E-05
4.2635E+00	2.6558E+00	-1.6962E-01	9.0593E-01	5.4931E-04	-5.0444E-06
4.2635E+00	2.6558E+00	-2.0786E-01	9.0962E-01	4.9076E-04	-1.7108E-06
4.2635E+00	2.6558E+00	-2.5496E-01	9.1728E-01	4.6879E-04	-3.9453E-06
4.2635E+00	2.6558E+00	-3.1303E-01	9.2783E-01	4.7061E-04	-3.7861E-06
4.2635E+00	2.6558E+00	-3.8314E-01	9.3426E-01	4.1356E-04	-6.2054E-06
4.2635E+00	2.6558E+00	-4.7025E-01	9.4490E-01	2.7324E-04	-3.1677E-06
4.2635E+00	2.6558E+00	-5.7649E-01	9.5577E-01	1.2965E-04	8.7026E-07
4.2635E+00	2.6558E+00	-7.0680E-01	9.6056E-01	6.0255E-05	2.1657E-07
4.2635E+00	2.6558E+00	-8.6615E-01	9.7010E-01	4.1923E-05	8.5361E-08
4.2635E+00	2.6558E+00	-1.0623E+00	9.8259E-01	3.7182E-05	7.3469E-08
4.2635E+00	2.6558E+00	0.0000E+00	7.0177E-02	7.6125E-04	2.4045E-05
4.2635E+00	2.6558E+00	1.4164E-03	7.0644E-02	9.5356E-04	4.7460E-05
4.2635E+00	2.6558E+00	2.4788E-03	7.5313E-02	1.3123E-03	8.6344E-05
4.2635E+00	2.6558E+00	3.3640E-03	8.4672E-02	1.9470E-03	1.4346E-04
4.2635E+00	2.6558E+00	4.2493E-03	1.0134E-01	3.0387E-03	2.3992E-04
4.2635E+00	2.6558E+00	5.6657E-03	1.3241E-01	4.9889E-03	3.5138E-04
4.2635E+00	2.6558E+00	6.7280E-03	1.5307E-01	6.1386E-03	4.1311E-04
4.2635E+00	2.6558E+00	7.7904E-03	1.7767E-01	7.2559E-03	4.0777E-04
4.2635E+00	2.6558E+00	9.5609E-03	2.2361E-01	8.4844E-03	3.1570E-04
4.2635E+00	2.6558E+00	1.1686E-02	2.6496E-01	8.6458E-03	2.2829E-04
4.2635E+00	2.6558E+00	1.4518E-02	3.0686E-01	8.4345E-03	1.6657E-04
4.2635E+00	2.6558E+00	1.7705E-02	3.3949E-01	8.4110E-03	1.2233E-04
4.2635E+00	2.6558E+00	2.1955E-02	3.7134E-01	8.2974E-03	1.2341E-04
4.2635E+00	2.6558E+00	2.6912E-02	4.0848E-01	8.3396E-03	8.3980E-05
4.2635E+00	2.6558E+00	3.2932E-02	4.5174E-01	8.2891E-03	4.8781E-05
4.2635E+00	2.6558E+00	4.0722E-02	4.9921E-01	8.1762E-03	1.5512E-05
4.2635E+00	2.6558E+00	4.9929E-02	5.5515E-01	7.6424E-03	-6.8662E-05
4.2635E+00	2.6558E+00	6.1261E-02	6.2211E-01	6.9976E-03	-1.1944E-04
4.2635E+00	2.6558E+00	7.5425E-02	6.9197E-01	5.5932E-03	-1.4999E-04
4.2635E+00	2.6558E+00	9.2068E-02	7.5809E-01	4.3301E-03	-1.5717E-04
4.2635E+00	2.6558E+00	1.1261E-01	8.3070E-01	2.6026E-03	-1.1849E-04
4.2635E+00	2.6558E+00	1.3810E-01	8.8300E-01	9.2762E-04	-2.5699E-05
4.2635E+00	2.6558E+00	1.6962E-01	9.0384E-01	5.3377E-04	-1.7925E-06
4.2635E+00	2.6558E+00	2.0786E-01	9.1347E-01	4.8751E-04	2.4623E-06
4.2635E+00	2.6558E+00	2.5496E-01	9.2090E-01	4.7126E-04	-4.5435E-06
4.2635E+00	2.6558E+00	3.1268E-01	9.2615E-01	4.7321E-04	-4.2515E-06
4.2635E+00	2.6558E+00	3.8314E-01	9.3505E-01	3.9577E-04	-4.6701E-07
4.2635E+00	2.6558E+00	4.7061E-01	9.4378E-01	3.0409E-04	-6.7403E-07
4.2635E+00	2.6558E+00	5.7613E-01	9.5137E-01	1.4952E-04	-5.2512E-08
4.2635E+00	2.6558E+00	7.0680E-01	9.6099E-01	6.5111E-05	5.2548E-07
4.2635E+00	2.6558E+00	8.6650E-01	9.6681E-01	4.6809E-05	1.2819E-07
4.2635E+00	2.6558E+00	1.0623E+00	9.7479E-01	3.5257E-05	7.3289E-08

Table B.1-10 Hot-wire velocity measurements at the trailing edge,
220-grade sandpaper trip, Y / T = 2.656

File E514170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.115178

viscosity (meters squared per second) = 1.63817E-05

Atmospheric pressure (Pascals) = 94780

Velocity of undisturbed free stream (Uref, in m/s) = 27.80475

Estimated momentum thickness at $x/T = -2.146$, $z/T = 0$ (m) = 4.066407E-03

Estimated momentum thickness Reynolds number = 6935.897

x/T	y/T	z/T	U/U_{ref}	u^2/U_{ref}^2	u^3/U_{ref}^3
4.2635E+00	5.3116E-01	0.0000E+00	7.9264E-02	1.4734E-03	9.2137E-05
4.2635E+00	5.3116E-01	1.0623E-03	7.8776E-02	1.4409E-03	8.9421E-05
4.2635E+00	5.3116E-01	2.1246E-03	8.2083E-02	1.7185E-03	1.2258E-04
4.2635E+00	5.3116E-01	3.1870E-03	8.8975E-02	2.1631E-03	1.5579E-04
4.2635E+00	5.3116E-01	4.2493E-03	9.6772E-02	2.7900E-03	2.2179E-04
4.2635E+00	5.3116E-01	5.3116E-03	1.0466E-01	3.4826E-03	2.8507E-04
4.2635E+00	5.3116E-01	6.3739E-03	1.1789E-01	4.3592E-03	3.4668E-04
4.2635E+00	5.3116E-01	7.7904E-03	1.3978E-01	5.7931E-03	4.4919E-04
4.2635E+00	5.3116E-01	9.5609E-03	1.6362E-01	6.7913E-03	5.7340E-04
4.2635E+00	5.3116E-01	1.1666E-02	1.9534E-01	7.5930E-03	6.1797E-04
4.2635E+00	5.3116E-01	1.4518E-02	2.2942E-01	7.7421E-03	7.4246E-04
4.2635E+00	5.3116E-01	1.7705E-02	2.5960E-01	7.7565E-03	8.9144E-04
4.2635E+00	5.3116E-01	2.1955E-02	2.9127E-01	7.4885E-03	1.0548E-03
4.2635E+00	5.3116E-01	2.6912E-02	3.2229E-01	7.6195E-03	1.4005E-03
4.2635E+00	5.3116E-01	3.2932E-02	3.5883E-01	7.8140E-03	1.6255E-03
4.2635E+00	5.3116E-01	4.0722E-02	3.9848E-01	7.8714E-03	1.3495E-03
4.2635E+00	5.3116E-01	4.9929E-02	4.4599E-01	8.1877E-03	1.0541E-03
4.2635E+00	5.3116E-01	6.1211E-02	5.0905E-01	7.9963E-03	6.6338E-04
4.2635E+00	5.3116E-01	7.5071E-02	5.7865E-01	7.8023E-03	-2.9739E-05
4.2635E+00	5.3116E-01	9.2058E-02	6.4764E-01	7.2199E-03	-1.2729E-04
4.2635E+00	5.3116E-01	1.1261E-01	7.3317E-01	5.8125E-03	-1.6011E-04
4.2635E+00	5.3116E-01	1.3691E-01	8.2619E-01	3.7454E-03	-1.9291E-04
4.2635E+00	5.3116E-01	1.6962E-01	9.0080E-01	8.4286E-04	-4.6686E-05
4.2635E+00	5.3116E-01	2.0786E-01	9.2371E-01	1.4352E-04	5.2597E-08
4.2635E+00	5.3116E-01	2.5496E-01	9.2857E-01	1.0841E-04	-1.8420E-07
4.2635E+00	5.3116E-01	3.1232E-01	9.3713E-01	1.2183E-04	-2.1707E-06
4.2635E+00	5.3116E-01	3.8314E-01	9.4616E-01	1.4027E-04	-2.2780E-06
4.2635E+00	5.3116E-01	4.6990E-01	9.5412E-01	2.1937E-04	-7.3924E-06
4.2635E+00	5.3116E-01	5.7654E-01	9.6134E-01	3.3052E-04	-1.3597E-05
4.2635E+00	5.3116E-01	7.0644E-01	9.6313E-01	6.0901E-04	-3.2190E-05
4.2635E+00	5.3116E-01	8.6615E-01	9.6360E-01	9.3149E-04	-4.8113E-05
4.2635E+00	5.3116E-01	1.0623E+00	9.6447E-01	1.0633E-03	-4.6589E-05
4.2635E+00	5.3116E-01	0.0000E+00	8.3729E-02	1.6829E-03	1.0621E-04
4.2635E+00	5.3116E-01	-1.0623E-03	8.4170E-02	1.6882E-03	1.0397E-04
4.2635E+00	5.3116E-01	-2.1246E-03	8.7566E-02	1.9454E-03	1.3637E-04
4.2635E+00	5.3116E-01	-3.1870E-03	9.5407E-02	2.4657E-03	1.7938E-04
4.2635E+00	5.3116E-01	-4.2493E-03	1.0237E-01	3.1208E-03	2.5281E-04
4.2635E+00	5.3116E-01	-5.3116E-03	1.0995E-01	3.6415E-03	2.8465E-04
4.2635E+00	5.3116E-01	-6.3739E-03	1.2205E-01	4.5934E-03	3.6919E-04
4.2635E+00	5.3116E-01	-7.7904E-03	1.3614E-01	5.5638E-03	3.9630E-04
4.2635E+00	5.3116E-01	-9.5609E-03	1.6257E-01	6.7857E-03	4.1772E-04
4.2635E+00	5.3116E-01	-1.1686E-02	1.9537E-01	7.8247E-03	3.4335E-04
4.2635E+00	5.3116E-01	-1.4695E-02	2.3333E-01	8.0955E-03	2.1849E-04
4.2635E+00	5.3116E-01	-1.7705E-02	2.6270E-01	7.9727E-03	1.7031E-04
4.2635E+00	5.3116E-01	-2.1955E-02	2.9057E-01	7.8722E-03	1.9828E-04
4.2635E+00	5.3116E-01	-2.6912E-02	3.2606E-01	7.7696E-03	1.4834E-04
4.2635E+00	5.3116E-01	-3.2932E-02	3.5761E-01	7.9785E-03	1.4549E-04
4.2635E+00	5.3116E-01	-4.0722E-02	3.9870E-01	8.2691E-03	1.4839E-04
4.2635E+00	5.3116E-01	-4.9929E-02	4.4467E-01	8.2863E-03	8.4969E-05
4.2635E+00	5.3116E-01	-6.1261E-02	5.0007E-01	8.1949E-03	5.3037E-05
4.2635E+00	5.3116E-01	-7.5071E-02	5.6204E-01	7.9797E-03	-2.5024E-05
4.2635E+00	5.3116E-01	-9.2068E-02	6.4321E-01	7.1834E-03	-1.2345E-04
4.2635E+00	5.3116E-01	-1.1261E-01	7.2767E-01	6.0943E-03	-1.6486E-04
4.2635E+00	5.3116E-01	-1.3810E-01	8.2807E-01	3.7209E-03	-1.9200E-04
4.2635E+00	5.3116E-01	-1.6962E-01	9.0289E-01	7.2253E-04	-3.8336E-05
4.2635E+00	5.3116E-01	-2.0786E-01	9.2158E-01	1.4069E-04	2.4406E-07
4.2635E+00	5.3116E-01	-2.5496E-01	9.2854E-01	1.1802E-04	-8.2309E-07
4.2635E+00	5.3116E-01	-3.1232E-01	9.3749E-01	1.5809E-04	-3.8385E-06
4.2635E+00	5.3116E-01	-3.8314E-01	9.4455E-01	2.2726E-04	-8.5070E-06
4.2635E+00	5.3116E-01	-4.7025E-01	9.5098E-01	3.2470E-04	-1.2852E-05
4.2635E+00	5.3116E-01	-5.7720E-01	9.5678E-01	4.3047E-04	-2.1803E-05
4.2635E+00	5.3116E-01	-7.0659E-01	9.6050E-01	6.2345E-04	-3.2799E-05
4.2635E+00	5.3116E-01	-8.6615E-01	9.5780E-01	9.8426E-04	-5.5415E-05
4.2635E+00	5.3116E-01	-1.0623E+00	9.6147E-01	1.2344E-03	-6.8193E-05

Table B.1-11 Hot-wire velocity measurements at the trailing edge, 120-grade sandpaper trip, $Y / T = .531$

File E51717) .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.115178

viscosity (meters squared per second) = 1.63817E-05

Atmospheric pressure (Pascals) = 94780

Velocity of undisturbed free stream (Uref, in m/s) = 27.80725

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.06633E-03

Estimated momentum thickness Reynolds number = 6936.394

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.0623E+00	0.0000E+00	5.4070E-02	5.8233E-04	1.9306E-05
4.2635E+00	1.0623E+00	-1.0623E-03	5.4868E-02	6.4147E-04	2.5692E-05
4.2635E+00	1.0623E+00	-2.1246E-03	5.5145E-02	7.2298E-04	3.3631E-05
4.2635E+00	1.0623E+00	-3.1870E-03	5.6525E-02	1.0020E-03	6.3426E-05
4.2635E+00	1.0623E+00	-4.2493E-03	6.4202E-02	1.3415E-03	9.1006E-05
4.2635E+00	1.0623E+00	-5.3116E-03	7.7061E-02	2.2606E-03	1.8313E-04
4.2635E+00	1.0623E+00	-6.3739E-03	9.4825E-02	3.3357E-03	2.4993E-04
4.2635E+00	1.0623E+00	-7.7504E-03	1.2019E-01	4.7995E-03	3.3474E-04
4.2635E+00	1.0623E+00	-9.5609E-03	1.5121E-01	6.0782E-03	3.1835E-04
4.2635E+00	1.0623E+00	-1.1686E-02	1.7656E-01	6.4559E-03	2.6265E-04
4.2635E+00	1.0623E+00	-1.5050E-02	2.0641E-01	6.4902E-03	1.8673E-04
4.2635E+00	1.0623E+00	-1.7705E-02	2.2666E-01	6.7176E-03	1.9595E-04
4.2635E+00	1.0623E+00	-2.1955E-02	2.5758E-01	6.8593E-03	1.6977E-04
4.2635E+00	1.0623E+00	-2.6912E-02	2.8457E-01	7.0864E-03	1.7700E-04
4.2635E+00	1.0623E+00	-3.3109E-02	3.1702E-01	7.2454E-03	1.6324E-04
4.2635E+00	1.0623E+00	-4.0722E-02	3.5626E-01	7.5162E-03	1.4724E-04
4.2635E+00	1.0623E+00	-5.0106E-02	4.0156E-01	7.7721E-03	8.9519E-05
4.2635E+00	1.0623E+00	-6.1438E-02	4.5338E-01	7.8018E-03	3.5592E-05
4.2635E+00	1.0623E+00	-7.5071E-02	5.1170E-01	7.8761E-03	5.2567E-05
4.2635E+00	1.0623E+00	-9.2068E-02	5.9060E-01	7.3354E-03	-7.1475E-05
4.2635E+00	1.0623E+00	-1.1261E-01	6.9152E-01	6.2402E-03	-1.3407E-04
4.2635E+00	1.0623E+00	-1.3810E-01	7.8109E-01	4.4434E-03	-1.8366E-04
4.2635E+00	1.0623E+00	-1.6962E-01	8.7961E-01	1.4745E-03	-9.1551E-05
4.2635E+00	1.0623E+00	-2.0786E-01	9.1632E-01	1.0438E-04	-1.5646E-08
4.2635E+00	1.0623E+00	-2.5496E-01	9.2339E-01	3.7132E-05	3.5488E-08
4.2635E+00	1.0623E+00	-3.1268E-01	9.3177E-01	2.9347E-05	2.2397E-08
4.2635E+00	1.0623E+00	-3.8314E-01	9.3847E-01	2.6307E-05	2.2038E-08
4.2635E+00	1.0623E+00	-4.6990E-01	9.4775E-01	2.7623E-05	1.0209E-08
4.2635E+00	1.0623E+00	-5.7649E-01	9.5509E-01	2.9068E-05	3.3244E-08
4.2635E+00	1.0623E+00	-7.0644E-01	9.6519E-01	2.8589E-05	2.0422E-08
4.2635E+00	1.0623E+00	-8.6615E-01	9.7331E-01	2.9512E-05	3.2565E-08
4.2635E+00	1.0623E+00	-1.0623E+00	9.8260E-01	2.9034E-05	1.9867E-08

Table B.1-12 Hot-wire velocity measurements at the trailing edge,
120-grade sandpaper trip, Y / T = 1.062

File E519170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.115178

viscosity (meters squared per second) = 1.63817E-05

Atmospheric pressure (Pascals) = 94780

Velocity of undisturbed free stream (Uref, in m/s) = 27.8185

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.056006E-03

Estimated momentum thickness Reynolds number = 6938.629

Y/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.5935E+00	0.0000E+00	4.1545E-02	3.9558E-04	1.0905E-05
4.2635E+00	1.5935E+00	-1.0623E-03	4.1804E-02	3.7262E-04	9.0709E-06
4.2635E+00	1.5935E+00	-2.1246E-03	4.2024E-02	4.1104E-04	1.2511E-05
4.2635E+00	1.5935E+00	-3.1870E-03	4.1103E-02	3.8997E-04	1.1474E-05
4.2635E+00	1.5935E+00	-4.2493E-03	4.1450E-02	4.3175E-04	1.5704E-05
4.2635E+00	1.5935E+00	-5.3116E-03	4.2861E-02	4.9351E-04	2.1807E-05
4.2635E+00	1.5935E+00	-6.3739E-03	4.9344E-02	8.6143E-04	5.5779E-05
4.2635E+00	1.5935E+00	-7.7904E-03	6.3458E-02	1.7043E-03	1.2220E-04
4.2635E+00	1.5935E+00	-9.5609E-03	8.9927E-02	3.3141E-03	2.4129E-04
4.2635E+00	1.5935E+00	-1.1686E-02	1.2625E-01	4.8529E-03	2.8934E-04
4.2635E+00	1.5935E+00	-1.4873E-02	1.6261E-01	5.8192E-03	2.5241E-04
4.2635E+00	1.5935E+00	-1.8059E-02	1.9574E-01	6.1056E-03	1.8253E-04
4.2635E+00	1.5935E+00	-2.1955E-02	2.2612E-01	6.3478E-03	1.9342E-04
4.2635E+00	1.5935E+00	-2.6912E-02	2.5142E-01	6.3423E-03	1.5802E-04
4.2635E+00	1.5935E+00	-3.2932E-02	2.8089E-01	6.7407E-03	1.7013E-04
4.2635E+00	1.5935E+00	-4.0722E-02	3.1676E-01	7.0956E-03	1.3962E-04
4.2635E+00	1.5935E+00	-4.9929E-02	3.6421E-01	7.4167E-03	1.4525E-04
4.2635E+00	1.5935E+00	-6.1261E-02	4.1435E-01	7.5697E-03	8.3909E-05
4.2635E+00	1.5935E+00	-7.5071E-02	4.7625E-01	7.9568E-03	5.3226E-05
4.2635E+00	1.5935E+00	-9.2068E-02	5.5623E-01	7.6915E-03	-3.1069E-05
4.2635E+00	1.5935E+00	-1.1261E-01	6.4499E-01	6.7778E-03	-1.2997E-04
4.2635E+00	1.5935E+00	-1.3810E-01	7.5179E-01	5.0064E-03	-1.6165E-04
4.2635E+00	1.5935E+00	-1.6962E-01	8.5973E-01	2.0645E-03	-1.2145E-04
4.2635E+00	1.5935E+00	-2.0786E-01	9.1047E-01	1.4947E-04	-2.5944E-06
4.2635E+00	1.5935E+00	-2.5496E-01	9.1707E-01	3.9422E-05	3.3841E-08
4.2635E+00	1.5935E+00	-3.1268E-01	9.2462E-01	3.2172E-05	1.2341E-08
4.2635E+00	1.5935E+00	-3.8314E-01	9.3388E-01	2.8136E-05	1.0358E-08
4.2635E+00	1.5935E+00	-4.6990E-01	9.4163E-01	2.8302E-05	2.7252E-08
4.2635E+00	1.5935E+00	-5.7613E-01	9.5009E-01	2.8299E-05	2.3318E-08
4.2635E+00	1.5935E+00	-7.0644E-01	9.5936E-01	2.7314E-05	3.2373E-08
4.2635E+00	1.5935E+00	-8.6615E-01	9.6594E-01	3.0448E-05	7.5732E-09
4.2635E+00	1.5935E+00	-1.0623E+00	9.7551E-01	2.8162E-05	2.6333E-08

Table B.1-13 Hot-wire velocity measurements at the trailing edge,
120-grade sandpaper trip, Y / T = 1.594

File E514170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.115178

viscosity (meters squared per second) = 1.63917E-05

Atmospheric pressure (Pascals) = 94780

Velocity of undisturbed free stream (Uref, in m/s) = 27.23724

Estimated momentum thickness at X/T = -2.146, Z/T=0 (z) = 4.025455E-03

Estimated momentum thickness Reynolds number = 6942.369

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.1246E+00	0.0000E+00	4.4953E-02	4.5165E-04	1.4050E-05
4.2635E+00	2.1246E+00	-1.0623E-03	4.5530E-02	4.4975E-04	1.2952E-05
4.2635E+00	2.1246E+00	-2.1246E-03	4.5667E-02	4.3559E-04	1.2784E-05
4.2635E+00	2.1246E+00	-3.1876E-03	4.4749E-02	4.4053E-04	1.3819E-05
4.2635E+00	2.1246E+00	-4.2493E-03	4.4079E-02	4.4231E-04	1.4669E-05
4.2635E+00	2.1246E+00	-5.3116E-03	4.5576E-02	5.4852E-04	2.5623E-05
4.2635E+00	2.1246E+00	-6.3739E-03	4.9704E-02	9.0150E-04	4.9949E-05
4.2635E+00	2.1246E+00	-7.7904E-03	6.1304E-02	1.4546E-03	1.0602E-04
4.2635E+00	2.1246E+00	-9.5609E-03	9.8938E-02	3.0549E-03	2.2580E-04
4.2635E+00	2.1246E+00	-1.1686E-02	1.2356E-01	4.7499E-03	2.7644E-04
4.2635E+00	2.1246E+00	-1.4516E-02	1.6261E-01	5.9238E-03	2.4657E-04
4.2635E+00	2.1246E+00	-1.7705E-02	1.9649E-01	6.2111E-03	2.2276E-04
4.2635E+00	2.1246E+00	-2.1955E-02	2.3931E-01	6.4786E-03	1.8930E-04
4.2635E+00	2.1246E+00	-2.6912E-02	2.5672E-01	6.5469E-03	1.6733E-04
4.2635E+00	2.1246E+00	-3.2932E-02	2.8737E-01	6.8283E-03	1.4160E-04
4.2635E+00	2.1246E+00	-4.0722E-02	3.2716E-01	7.1422E-03	1.3592E-04
4.2635E+00	2.1246E+00	-4.9929E-02	3.7965E-01	7.3792E-03	1.4799E-04
4.2635E+00	2.1246E+00	-6.1261E-02	4.2370E-01	7.6858E-03	9.8635E-05
4.2635E+00	2.1246E+00	-7.5971E-02	4.8290E-01	7.8452E-03	2.7646E-05
4.2635E+00	2.1246E+00	-9.2068E-02	5.6316E-01	7.4362E-03	-3.1187E-05
4.2635E+00	2.1246E+00	-1.1261E-01	6.5178E-01	6.6297E-03	-9.3531E-05
4.2635E+00	2.1246E+00	-1.3810E-01	7.5437E-01	5.1378E-03	-1.8378E-04
4.2635E+00	2.1246E+00	-1.6962E-01	8.6389E-01	2.2425E-03	-1.1693E-04
4.2635E+00	2.1246E+00	-2.0822E-01	9.2152E-01	1.7184E-04	-2.5073E-06
4.2635E+00	2.1246E+00	-2.5496E-01	9.2967E-01	3.7885E-05	4.1855E-08
4.2635E+00	2.1246E+00	-3.1268E-01	9.3668E-01	2.7120E-05	2.6033E-08
4.2635E+00	2.1246E+00	-3.8350E-01	9.4490E-01	2.4140E-05	1.6369E-09
4.2635E+00	2.1246E+00	-4.6990E-01	9.5242E-01	2.3796E-05	2.3034E-08
4.2635E+00	2.1246E+00	-5.7649E-01	9.6144E-01	2.5672E-05	1.8917E-09
4.2635E+00	2.1246E+00	-7.0644E-01	9.6898E-01	2.5032E-05	1.4884E-08
4.2635E+00	2.1246E+00	-8.6615E-01	9.7790E-01	2.7003E-05	1.8015E-08
4.2635E+00	2.1246E+00	-1.0623E+00	9.8709E-01	2.5199E-05	1.5291E-08

Table B.1-14 Hot-wire velocity measurements at the trailing edge,
120-grade sandpaper trip, Y / T = 2.125

File ES15170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.115178

viscosity (meters squared per second) = 1.63817E-05

Atmospheric pressure (Pascals) = 94780

Velocity of undisturbed free stream (Uref, in m/s) = 27.81853

Estimated momentum thickness at $Y/T = -2.145$, $Z/T = 0$ (α) = 4.056002E-03

Estimated momentum thickness Reynolds number = 693E.655

Y/T	Y/T	Z/T	U/Uref	U2/Uref2	u3/Uref3
4.2635E+00	2.6558E+00	0.0000E+00	2.9936E-02	1.7042E-04	4.3281E-06
4.2635E+00	2.6558E+00	-1.2394E-03	3.0216E-02	1.7761E-04	4.1357E-06
4.2635E+00	2.6558E+00	-2.3917E-03	3.0574E-02	1.8465E-04	4.3286E-06
4.2635E+00	2.6558E+00	-3.3640E-03	3.0965E-02	1.7409E-04	3.5539E-06
4.2635E+00	2.6558E+00	-4.2493E-03	3.1399E-02	1.8101E-04	3.9792E-06
4.2635E+00	2.6558E+00	-5.3116E-03	3.2053E-02	1.8446E-04	4.4158E-06
4.2635E+00	2.6558E+00	-6.3739E-03	3.4271E-02	2.1493E-04	5.8006E-06
4.2635E+00	2.6558E+00	-7.7904E-03	4.8298E-02	7.7953E-04	4.6073E-05
4.2635E+00	2.6558E+00	-9.5607E-03	8.0243E-02	2.8065E-03	2.1892E-04
4.2635E+00	2.6558E+00	-1.2040E-02	1.3435E-01	6.0220E-03	4.1339E-04
4.2635E+00	2.6558E+00	-1.4519E-02	1.7873E-01	7.3857E-03	3.5142E-04
4.2635E+00	2.6558E+00	-1.7705E-02	2.1213E-01	7.8465E-03	3.0532E-04
4.2635E+00	2.6558E+00	-2.1955E-02	2.4756E-01	8.2741E-03	2.5828E-04
4.2635E+00	2.6558E+00	-2.7069E-02	2.8324E-01	8.9913E-03	2.7439E-04
4.2635E+00	2.6558E+00	-3.2932E-02	3.1729E-01	9.1261E-03	2.5042E-04
4.2635E+00	2.6558E+00	-4.0722E-02	3.5757E-01	9.5333E-03	1.7771E-04
4.2635E+00	2.6558E+00	-4.9429E-02	4.0649E-01	9.3801E-03	1.4739E-04
4.2635E+00	2.6558E+00	-6.1261E-02	4.6656E-01	9.4017E-03	4.4075E-05
4.2635E+00	2.6558E+00	-7.5071E-02	5.2916E-01	8.9161E-03	1.4267E-05
4.2635E+00	2.6558E+00	-9.2422E-02	6.0766E-01	8.2429E-03	-1.1149E-04
4.2635E+00	2.6558E+00	-1.1261E-01	6.8676E-01	7.1741E-03	-1.3647E-04
4.2635E+00	2.6558E+00	-1.3810E-01	7.8221E-01	5.3690E-03	-2.0795E-04
4.2635E+00	2.6558E+00	-1.6962E-01	8.7989E-01	2.3269E-03	-1.3578E-04
4.2635E+00	2.6558E+00	-2.0786E-01	9.2756E-01	4.3299E-04	-1.4691E-05
4.2635E+00	2.6558E+00	-2.5496E-01	9.3539E-01	2.5060E-04	3.3340E-06
4.2635E+00	2.6558E+00	-3.1268E-01	9.4338E-01	2.1745E-04	3.0187E-06
4.2635E+00	2.6558E+00	-3.8314E-01	9.5054E-01	1.8211E-04	-4.0068E-07
4.2635E+00	2.6558E+00	-4.6990E-01	9.5778E-01	1.3396E-04	1.4184E-06
4.2635E+00	2.6558E+00	-5.7613E-01	9.6613E-01	7.7528E-05	1.2667E-07
4.2635E+00	2.6558E+00	-7.0644E-01	9.7135E-01	4.1839E-05	9.0197E-08
4.2635E+00	2.6558E+00	-8.6615E-01	9.7835E-01	3.2229E-05	2.8641E-08
4.2635E+00	2.6558E+00	-1.0623E+00	9.8542E-01	2.7982E-05	1.4598E-08
4.2635E+00	2.6558E+00	0.0000E+00	2.9639E-02	1.6788E-04	3.9353E-06
4.2635E+00	2.6558E+00	1.0623E-03	3.0072E-02	1.7672E-04	-4.5112E-06
4.2635E+00	2.6558E+00	2.1246E-03	2.9848E-02	1.7362E-04	4.3328E-06
4.2635E+00	2.6558E+00	3.1870E-03	2.9701E-02	1.6317E-04	3.7754E-06
4.2635E+00	2.6558E+00	4.2493E-03	2.9549E-02	1.5165E-04	3.1355E-06
4.2635E+00	2.6558E+00	5.3116E-03	2.9761E-02	1.5427E-04	3.4479E-06
4.2635E+00	2.6558E+00	6.3739E-03	3.0104E-02	1.4386E-04	3.0018E-06
4.2635E+00	2.6558E+00	7.7904E-03	3.5044E-02	2.2695E-04	7.0504E-06
4.2635E+00	2.6558E+00	9.5609E-03	7.8021E-02	2.5418E-03	2.0661E-04
4.2635E+00	2.6558E+00	1.1686E-02	1.4240E-01	6.3567E-03	4.1040E-04
4.2635E+00	2.6558E+00	1.4518E-02	1.9723E-01	7.7429E-03	3.4215E-04
4.2635E+00	2.6558E+00	1.7705E-02	2.3047E-01	8.0758E-03	3.0300E-04
4.2635E+00	2.6558E+00	2.1955E-02	2.6853E-01	8.4549E-03	2.5786E-04
4.2635E+00	2.6558E+00	2.6912E-02	3.0480E-01	8.8245E-03	2.6833E-04
4.2635E+00	2.6558E+00	3.2932E-02	3.3541E-01	9.0663E-03	2.1634E-04
4.2635E+00	2.6558E+00	4.0722E-02	3.8272E-01	9.7218E-03	2.2278E-04
4.2635E+00	2.6558E+00	4.9929E-02	4.2721E-01	9.5219E-03	1.3916E-04
4.2635E+00	2.6558E+00	6.1261E-02	4.8725E-01	9.3418E-03	3.7012E-05
4.2635E+00	2.6558E+00	7.5071E-02	5.4710E-01	8.8181E-03	-8.9631E-06
4.2635E+00	2.6558E+00	9.2068E-02	6.2014E-01	8.1717E-03	-1.1319E-04
4.2635E+00	2.6558E+00	1.1261E-01	6.9554E-01	6.7367E-03	-1.5350E-04
4.2635E+00	2.6558E+00	1.3810E-01	7.9014E-01	5.0201E-03	-2.0484E-04
4.2635E+00	2.6558E+00	1.6962E-01	8.8081E-01	2.2143E-03	-1.3116E-04
4.2635E+00	2.6558E+00	2.0786E-01	9.2336E-01	4.8846E-04	-9.1781E-06
4.2635E+00	2.6558E+00	2.5496E-01	9.3068E-01	3.2380E-04	3.2581E-06
4.2635E+00	2.6558E+00	3.1268E-01	9.3734E-01	3.0968E-04	2.5941E-06
4.2635E+00	2.6558E+00	3.8350E-01	9.4645E-01	2.6801E-04	1.6627E-07
4.2635E+00	2.6558E+00	4.6990E-01	9.5457E-01	1.8613E-04	1.2702E-06
4.2635E+00	2.6558E+00	5.7613E-01	9.6304E-01	9.8728E-05	8.1089E-07
4.2635E+00	2.6558E+00	7.0644E-01	9.7103E-01	5.1274E-05	6.3496E-09
4.2635E+00	2.6558E+00	8.6615E-01	9.8081E-01	3.4913E-05	2.7787E-08
4.2635E+00	2.6558E+00	1.0623E+00	9.8708E-01	3.1620E-05	7.9822E-09

Table B.1-15 Hot-wire velocity measurements at the trailing edge,
120-grade sandpaper trip, $Y / T = 2.656$

File E457170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 24.9

density (kilograms per meter cubed) = 1.095374

viscosity (meters squared per second) = 1.675601E-05

Atmospheric pressure (Pascals) = 93563

Velocity of undisturbed free stream (Uref, in m/s) = 27.77571

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087263E-03

Estimated momentum thickness Reynolds number = 6775.276

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	5.3116E-01	-1.0623E+00	9.6068E-01	1.0521E-03	-5.1385E-05
4.2635E+00	5.3116E-01	-8.6615E-01	9.6110E-01	8.4460E-04	-4.1207E-05
4.2635E+00	5.3116E-01	-7.0644E-01	9.5678E-01	5.2258E-04	-2.0831E-05
4.2635E+00	5.3116E-01	-5.7578E-01	9.5229E-01	4.0339E-04	-1.8485E-05
4.2635E+00	5.3116E-01	-4.6984E-01	9.4525E-01	3.2172E-04	-1.0812E-05
4.2635E+00	5.3116E-01	-3.8208E-01	9.4017E-01	2.5443E-04	-7.1096E-06
4.2635E+00	5.3116E-01	-3.1268E-01	9.3315E-01	2.9816E-04	-3.7517E-06
4.2635E+00	5.3116E-01	-2.5496E-01	9.0254E-01	1.7554E-03	-1.2542E-04
4.2635E+00	5.3116E-01	-2.0786E-01	8.4121E-01	4.5745E-03	-2.5670E-04
4.2635E+00	5.3116E-01	-1.6962E-01	7.6237E-01	6.5088E-03	-1.9566E-04
4.2635E+00	5.3116E-01	-1.3810E-01	6.9253E-01	7.8747E-03	-1.6229E-04
4.2635E+00	5.3116E-01	-1.1261E-01	6.3006E-01	8.7247E-03	-1.0074E-04
4.2635E+00	5.3116E-01	-9.2068E-02	5.7991E-01	9.3616E-03	-2.3399E-06
4.2635E+00	5.3116E-01	-7.5071E-02	5.3906E-01	9.6915E-03	4.7663E-05
4.2635E+00	5.3116E-01	-6.1261E-02	4.8659E-01	9.6373E-03	5.3431E-05
4.2635E+00	5.3116E-01	-4.9929E-02	4.4852E-01	1.0046E-02	1.6984E-04
4.2635E+00	5.3116E-01	-4.0722E-02	4.1375E-01	1.0050E-02	1.8075E-04
4.2635E+00	5.3116E-01	-3.2932E-02	3.8339E-01	9.9879E-03	1.7799E-04
4.2635E+00	5.3116E-01	-2.6735E-02	3.5381E-01	9.9399E-03	2.2612E-04
4.2635E+00	5.3116E-01	-2.1955E-02	3.2827E-01	9.9005E-03	2.2053E-04
4.2635E+00	5.3116E-01	-1.7705E-02	3.0197E-01	9.7093E-03	2.1101E-04
4.2635E+00	5.3116E-01	-1.4518E-02	2.7617E-01	9.6259E-03	2.1869E-04
4.2635E+00	5.3116E-01	-1.1686E-02	2.4614E-01	9.6930E-03	3.0807E-04
4.2635E+00	5.3116E-01	-9.5609E-03	2.2749E-01	9.5314E-03	4.2265E-04
4.2635E+00	5.3116E-01	-7.7904E-03	2.1036E-01	9.0614E-03	4.7445E-04
4.2635E+00	5.3116E-01	-6.3739E-03	1.9270E-01	8.6491E-03	5.4675E-04
4.2635E+00	5.3116E-01	-5.3116E-03	1.8058E-01	7.7437E-03	5.3302E-04
4.2635E+00	5.3116E-01	-4.2493E-03	1.6614E-01	6.8412E-03	4.6813E-04
4.2635E+00	5.3116E-01	-3.1870E-03	1.5158E-01	5.8009E-03	4.4506E-04
4.2635E+00	5.3116E-01	-2.1246E-03	1.4163E-01	5.6455E-03	4.0681E-04
4.2635E+00	5.3116E-01	-1.0623E-03	1.2545E-01	3.7545E-03	2.8991E-04
4.2635E+00	5.3116E-01	0.0000E+00	1.1954E-01	3.1415E-03	2.1791E-04
4.2635E+00	5.3116E-01	1.0623E-03	1.1473E-01	2.8095E-03	1.8866E-04
4.2635E+00	5.3116E-01	2.1246E-03	1.1530E-01	2.8148E-03	1.8425E-04
4.2635E+00	5.3116E-01	3.1870E-03	1.1795E-01	3.1446E-03	2.3440E-04
4.2635E+00	5.3116E-01	4.2493E-03	1.2500E-01	3.6230E-03	2.6767E-04
4.2635E+00	5.3116E-01	5.3116E-03	1.3329E-01	4.4756E-03	3.6348E-04
4.2635E+00	5.3116E-01	6.3739E-03	1.4182E-01	5.1444E-03	4.1468E-04
4.2635E+00	5.3116E-01	7.7904E-03	1.5615E-01	6.4044E-03	5.2210E-04
4.2635E+00	5.3116E-01	9.5609E-03	1.7633E-01	7.5971E-03	5.0866E-04
4.2635E+00	5.3116E-01	1.1686E-02	2.0597E-01	8.7460E-03	4.6259E-04
4.2635E+00	5.3116E-01	1.4518E-02	2.4449E-01	9.3151E-03	2.9569E-04
4.2635E+00	5.3116E-01	1.7705E-02	2.7721E-01	9.8264E-03	2.5665E-04
4.2635E+00	5.3116E-01	2.1955E-02	3.0174E-01	9.5327E-03	1.9419E-04
4.2635E+00	5.3116E-01	2.6912E-02	3.3467E-01	9.6164E-03	1.7746E-04
4.2635E+00	5.3116E-01	3.2932E-02	3.7098E-01	9.7200E-03	2.2150E-04
4.2635E+00	5.3116E-01	4.1076E-02	3.9918E-01	9.5292E-03	1.5919E-04
4.2635E+00	5.3116E-01	5.1700E-02	4.4295E-01	9.7227E-03	9.5378E-05
4.2635E+00	5.3116E-01	6.1615E-02	4.8932E-01	9.6938E-03	9.3455E-05
4.2635E+00	5.3116E-01	7.5071E-02	5.2190E-01	9.6898E-03	9.9050E-05
4.2635E+00	5.3116E-01	9.2068E-02	5.7409E-01	9.1712E-03	9.7845E-06
4.2635E+00	5.3116E-01	1.1261E-01	6.2218E-01	8.5425E-03	-7.2573E-05
4.2635E+00	5.3116E-01	1.3810E-01	6.8444E-01	7.7449E-03	-1.2766E-04
4.2635E+00	5.3116E-01	1.6962E-01	7.5982E-01	6.4866E-03	-1.9396E-04
4.2635E+00	5.3116E-01	2.0786E-01	8.3532E-01	4.5734E-03	-2.4540E-04
4.2635E+00	5.3116E-01	2.5496E-01	8.9940E-01	1.6941E-03	-1.2309E-04
4.2635E+00	5.3116E-01	3.1268E-01	9.3133E-01	2.9032E-04	-4.6090E-06
4.2635E+00	5.3116E-01	3.8314E-01	9.3994E-01	1.4321E-04	-7.8865E-07
4.2635E+00	5.3116E-01	4.7043E-01	9.4974E-01	1.8413E-04	-4.0491E-06
4.2635E+00	5.3116E-01	5.7631E-01	9.5566E-01	2.3951E-04	-6.3162E-06
4.2635E+00	5.3116E-01	7.0644E-01	9.6421E-01	4.1369E-04	-1.5954E-05
4.2635E+00	5.3116E-01	8.6615E-01	9.6269E-01	7.6035E-04	-3.6161E-05
4.2635E+00	5.3116E-01	1.0623E+00	9.5614E-01	1.1066E-03	-5.1551E-05
4.2635E+00	5.3116E-01	1.0623E+00	9.6083E-01	1.0897E-03	-5.2307E-05

Table B.1-16 Hot-wire velocity measurements at the trailing edge,
1mm wire trip, Y / T = .531

File E456170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.094639

viscosity (meters squared per second) = 1.677594E-05

Atmospheric pressure (Pascals) = 93663

Velocity of undisturbed free stream (Uref. in m/s) = 27.74003

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08E315E-03

Estimated momentum thickness Reynolds number = 6760.273

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.0623E+00	0.0000E+00	1.0482E-01	2.3553E-03	1.4892E-04
4.2635E+00	1.0623E+00	-1.0623E-03	1.1029E-01	2.8419E-03	1.9723E-04
4.2635E+00	1.0623E+00	-2.1246E-03	1.2308E-01	4.0031E-03	3.1449E-04
4.2635E+00	1.0623E+00	-3.1870E-03	1.3226E-01	4.7344E-03	3.7025E-04
4.2635E+00	1.0623E+00	-4.2493E-03	1.4363E-01	5.6803E-03	4.5254E-04
4.2635E+00	1.0623E+00	-5.3116E-03	1.5187E-01	6.2352E-03	4.5837E-04
4.2635E+00	1.0623E+00	-6.3739E-03	1.6221E-01	6.8730E-03	4.9164E-04
4.2635E+00	1.0623E+00	-7.7904E-03	1.7369E-01	7.6655E-03	4.8980E-04
4.2635E+00	1.0623E+00	-9.5609E-03	1.8860E-01	8.3816E-03	5.0483E-04
4.2635E+00	1.0623E+00	-1.1686E-02	2.0641E-01	8.5700E-03	5.6168E-04
4.2635E+00	1.0623E+00	-1.4518E-02	2.3374E-01	9.2027E-03	3.4073E-04
4.2635E+00	1.0623E+00	-1.7705E-02	2.6307E-01	9.4180E-03	2.8782E-04
4.2635E+00	1.0623E+00	-2.1955E-02	2.8573E-01	9.3057E-03	2.4229E-04
4.2635E+00	1.0623E+00	-2.7089E-02	3.0911E-01	9.3573E-03	1.7532E-04
4.2635E+00	1.0623E+00	-3.2932E-02	3.3625E-01	9.6790E-03	1.9296E-04
4.2635E+00	1.0623E+00	-4.0722E-02	3.6592E-01	9.9320E-03	2.2137E-04
4.2635E+00	1.0623E+00	-4.9929E-02	3.9845E-01	9.8302E-03	1.6075E-04
4.2635E+00	1.0623E+00	-6.1261E-02	4.3907E-01	9.9449E-03	1.1359E-04
4.2635E+00	1.0623E+00	-7.5071E-02	4.7714E-01	9.7187E-03	9.2718E-05
4.2635E+00	1.0623E+00	-9.2068E-02	5.2162E-01	9.3858E-03	1.5275E-05
4.2635E+00	1.0623E+00	-1.1261E-01	5.7577E-01	9.3045E-03	-5.3945E-05
4.2635E+00	1.0623E+00	-1.3810E-01	6.3689E-01	8.4903E-03	-8.2695E-05
4.2635E+00	1.0623E+00	-1.6962E-01	7.0666E-01	7.3396E-03	-1.3659E-04
4.2635E+00	1.0623E+00	-2.0786E-01	7.8496E-01	5.7798E-03	-1.9231E-04
4.2635E+00	1.0623E+00	-2.5531E-01	8.6557E-01	3.4556E-03	-2.3071E-04
4.2635E+00	1.0623E+00	-3.1303E-01	9.2409E-01	6.0238E-04	-3.1723E-05
4.2635E+00	1.0623E+00	-3.8314E-01	9.3831E-01	1.0142E-04	5.5847E-07
4.2635E+00	1.0623E+00	-4.6990E-01	9.4678E-01	5.0921E-05	1.5267E-07
4.2635E+00	1.0623E+00	-5.7613E-01	9.5899E-01	4.7669E-05	1.3501E-07
4.2635E+00	1.0623E+00	-7.0644E-01	9.6715E-01	4.7524E-05	1.5051E-07
4.2635E+00	1.0623E+00	-8.6615E-01	9.7429E-01	4.5284E-05	1.5461E-07
4.2635E+00	1.0623E+00	-1.0623E+00	9.8230E-01	4.5748E-05	1.3911E-07

Table B.1-17 Hot-wire velocity measurements at the trailing edge,
1mm wire trip, Y / T = 1.062

File E455170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.099279

viscosity (meters squared per second) = 1.670514E-05

Atmospheric pressure (Pascals) = 94060

Velocity of undisturbed free stream (Uref, in m/s) = 27.63019

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091559E-03

Estimated momentum thickness Reynolds number = 6767.413

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	1.5935E+00	0.0000E+00	1.0978E-01	2.8494E-03	1.8050E-04
4.2635E+00	1.5935E+00	-1.2394E-03	1.0980E-01	2.9818E-03	2.0100E-04
4.2635E+00	1.5935E+00	-2.1246E-03	1.1183E-01	3.0620E-03	1.9795E-04
4.2635E+00	1.5935E+00	-3.1870E-03	1.1360E-01	3.6195E-03	2.6642E-04
4.2635E+00	1.5935E+00	-4.2493E-03	1.2485E-01	4.2925E-03	3.3236E-04
4.2635E+00	1.5935E+00	-5.3116E-03	1.2825E-01	4.6517E-03	3.5252E-04
4.2635E+00	1.5935E+00	-6.3739E-03	1.3729E-01	5.2586E-03	3.9170E-04
4.2635E+00	1.5935E+00	-7.7904E-03	1.5114E-01	6.4191E-03	4.7420E-04
4.2635E+00	1.5935E+00	-9.5609E-03	1.7466E-01	7.7065E-03	4.6185E-04
4.2635E+00	1.5935E+00	-1.1696E-02	2.0056E-01	8.7955E-03	3.9212E-04
4.2635E+00	1.5935E+00	-1.4518E-02	2.2519E-01	9.0991E-03	3.6157E-04
4.2635E+00	1.5935E+00	-1.7705E-02	2.4600E-01	9.4062E-03	2.9624E-04
4.2635E+00	1.5935E+00	-2.1955E-02	2.6955E-01	9.0482E-03	2.2958E-04
4.2635E+00	1.5935E+00	-2.6912E-02	2.9751E-01	9.3611E-03	2.1580E-04
4.2635E+00	1.5935E+00	-3.2932E-02	3.2420E-01	9.6503E-03	2.3353E-04
4.2635E+00	1.5935E+00	-4.0722E-02	3.5496E-01	9.7128E-03	2.0266E-04
4.2635E+00	1.5935E+00	-4.9929E-02	3.8742E-01	9.7329E-03	1.4961E-04
4.2635E+00	1.5935E+00	-6.1261E-02	4.2358E-01	9.6960E-03	1.4332E-04
4.2635E+00	1.5935E+00	-7.5071E-02	4.6039E-01	9.3646E-03	9.6355E-05
4.2635E+00	1.5935E+00	-9.2068E-02	5.0786E-01	9.1546E-03	6.4560E-05
4.2635E+00	1.5935E+00	1.1261E-01	5.6002E-01	8.7476E-03	-9.7216E-06
4.2635E+00	1.5935E+00	-1.3810E-01	6.2297E-01	8.2503E-03	-9.0251E-05
4.2635E+00	1.5935E+00	-1.6962E-01	6.9265E-01	7.4108E-03	-1.2928E-04
4.2635E+00	1.5935E+00	-2.0786E-01	7.7015E-01	5.9090E-03	-1.9770E-04
4.2635E+00	1.5935E+00	-2.5496E-01	8.4821E-01	3.5770E-03	-2.1686E-04
4.2635E+00	1.5935E+00	-3.1268E-01	9.1029E-01	7.8370E-04	-4.5922E-05
4.2635E+00	1.5935E+00	-3.8314E-01	9.2914E-01	9.9865E-05	6.7561E-07
4.2635E+00	1.5935E+00	-4.8088E-01	9.3653E-01	4.6940E-05	9.6954E-08
4.2635E+00	1.5935E+00	-5.7649E-01	9.4537E-01	3.6146E-05	6.5292E-08
4.2635E+00	1.5935E+00	-7.0644E-01	9.5466E-01	3.6829E-05	7.2689E-08
4.2635E+00	1.5935E+00	-8.6615E-01	9.6399E-01	3.8520E-05	8.2502E-08
4.2635E+00	1.5935E+00	-1.0517E+00	9.7159E-01	3.5329E-05	1.0458E-07

Table B.1-18 Hot-wire velocity measurements at the trailing edge,
1mm wire trip, Y / T = 1.594

File E4SE170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.094639

viscosity (meters squared per second) = 1.677594E-05

Atmospheric pressure (Pascals) = 93663

Velocity of undisturbed free stream (Uref, in m/s) = 27.81713

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.085046E-03

Estimated momentum thickness Reynolds number = 6775.3

X/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.1246E+00	0.0000E+00	6.4849E-02	6.6653E-04	2.2550E-05
4.2635E+00	2.1246E+00	-1.0623E-03	6.5187E-02	6.9043E-04	2.3677E-05
4.2635E+00	2.1246E+00	-2.1246E-03	6.5390E-02	7.4655E-04	3.0184E-05
4.2635E+00	2.1246E+00	-3.1870E-03	6.6768E-02	8.6506E-04	4.1780E-05
4.2635E+00	2.1246E+00	-4.2493E-03	7.0014E-02	1.0764E-03	6.2763E-05
4.2635E+00	2.1246E+00	-5.3116E-03	7.6722E-02	1.7300E-03	1.2857E-04
4.2635E+00	2.1246E+00	-6.3739E-03	9.9582E-02	3.2733E-03	2.6117E-04
4.2635E+00	2.1246E+00	-7.7904E-03	1.3381E-01	5.5499E-03	4.0890E-04
4.2635E+00	2.1246E+00	-9.5609E-03	1.6536E-01	7.0242E-03	4.3512E-04
4.2635E+00	2.1246E+00	-1.1686E-02	1.8465E-01	7.6613E-03	3.9714E-04
4.2635E+00	2.1246E+00	-1.4518E-02	2.0703E-01	7.6167E-03	2.8285E-04
4.2635E+00	2.1246E+00	-1.7705E-02	2.3501E-01	8.4772E-03	2.7126E-04
4.2635E+00	2.1246E+00	-2.1955E-02	2.7352E-01	8.8267E-03	2.5043E-04
4.2635E+00	2.1246E+00	-2.6912E-02	2.9806E-01	8.9965E-03	2.1649E-04
4.2635E+00	2.1246E+00	-3.2932E-02	3.2293E-01	9.2050E-03	2.0802E-04
4.2635E+00	2.1246E+00	-4.0722E-02	3.5646E-01	9.3387E-03	1.6673E-04
4.2635E+00	2.1246E+00	-4.9929E-02	3.8951E-01	9.4509E-03	1.8097E-04
4.2635E+00	2.1246E+00	-6.1261E-02	4.2878E-01	9.4000E-03	1.7229E-04
4.2635E+00	2.1246E+00	-7.5071E-02	4.6802E-01	9.4212E-03	7.8897E-05
4.2635E+00	2.1246E+00	-9.2422E-02	5.1843E-01	8.9147E-03	3.9232E-05
4.2635E+00	2.1246E+00	-1.1261E-01	5.6713E-01	8.6354E-03	-9.7052E-06
4.2635E+00	2.1246E+00	-1.3810E-01	6.2677E-01	8.0335E-03	-6.7225E-05
4.2635E+00	2.1246E+00	-1.6962E-01	6.9938E-01	7.3257E-03	-1.2080E-04
4.2635E+00	2.1246E+00	-2.0786E-01	7.7611E-01	5.9816E-03	-1.9087E-04
4.2635E+00	2.1246E+00	-2.5513E-01	8.5613E-01	3.6794E-03	-2.2243E-04
4.2635E+00	2.1246E+00	-3.1268E-01	9.1936E-01	7.4961E-04	-4.5452E-05
4.2635E+00	2.1246E+00	-3.8314E-01	9.3733E-01	1.0799E-04	4.3091E-07
4.2635E+00	2.1246E+00	-4.6990E-01	9.4766E-01	5.8506E-05	1.9889E-07
4.2635E+00	2.1246E+00	-5.7666E-01	9.5841E-01	5.1034E-05	1.2321E-07
4.2635E+00	2.1246E+00	-7.0644E-01	9.6297E-01	4.9794E-05	1.4020E-07
4.2635E+00	2.1246E+00	-8.6721E-01	9.7203E-01	4.5032E-05	1.3057E-07
4.2635E+00	2.1246E+00	-1.0623E+00	9.7987E-01	4.1487E-05	1.4006E-07

Table B.1-19 Hot-wire velocity measurements at the trailing edge, 1mm wire trip, Y / T = 2.125

File E459170 .RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.102902

viscosity (meters squared per second) = 1.865026E-05

Atmospheric pressure (Pascals) = 94370

Velocity of undisturbed free stream (Uref. in m/s) = 27.77409

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087311E-03

Estimated corentue thickness Reynolds number = 6917.991

Y/T	Y/T	Z/T	U/Uref	u2/Uref2	u3/Uref3
4.2635E+00	2.6558E+00	0.0000E+00	6.6247E-02	6.6828E-04	2.0843E-05
4.2635E+00	2.6558E+00	-1.0623E-03	6.5304E-02	6.5020E-04	2.1475E-05
4.2635E+00	2.6558E+00	-2.1246E-03	6.4060E-02	6.5884E-04	2.5116E-05
4.2635E+00	2.6558E+00	-3.1870E-03	6.4348E-02	7.0803E-04	3.0521E-05
4.2635E+00	2.6558E+00	-4.2493E-03	6.5831E-02	8.1751E-04	4.5720E-05
4.2635E+00	2.6558E+00	-5.3116E-03	7.0824E-02	1.1181E-03	7.9031E-05
4.2635E+00	2.6558E+00	-6.3739E-03	8.3846E-02	1.9670E-03	1.5628E-04
4.2635E+00	2.6558E+00	-7.7904E-03	1.0411E-01	3.3851E-03	2.7690E-04
4.2635E+00	2.6558E+00	-9.5609E-03	1.5100E-01	6.5866E-03	4.9168E-04
4.2635E+00	2.6558E+00	-1.1686E-02	2.2801E-01	9.9606E-03	4.9815E-04
4.2635E+00	2.6558E+00	-1.4518E-02	2.8318E-01	1.0409E-02	2.6831E-04
4.2635E+00	2.6558E+00	-1.7705E-02	3.2333E-01	1.0522E-02	1.8005E-04
4.2635E+00	2.6558E+00	-2.1955E-02	3.5405E-01	1.0900E-02	2.0845E-04
4.2635E+00	2.6558E+00	-2.6912E-02	3.9333E-01	1.0763E-02	1.3793E-04
4.2635E+00	2.6558E+00	-3.2932E-02	4.2970E-01	1.0618E-02	1.3267E-04
4.2635E+00	2.6558E+00	-4.0722E-02	4.7149E-01	1.0588E-02	9.7144E-05
4.2635E+00	2.6558E+00	-4.9929E-02	5.1493E-01	1.0686E-02	7.9264E-05
4.2635E+00	2.6558E+00	-6.1261E-02	5.6484E-01	9.9337E-03	-3.6465E-05
4.2635E+00	2.6558E+00	-7.5071E-02	6.1119E-01	9.3367E-03	-1.2749E-04
4.2635E+00	2.6558E+00	-9.2422E-02	6.6768E-01	8.2321E-03	-1.5973E-04
4.2635E+00	2.6558E+00	-1.1261E-01	7.1557E-01	6.9735E-03	-1.5027E-04
4.2635E+00	2.6558E+00	-1.3846E-01	7.7492E-01	5.8120E-03	-1.6892E-04
4.2635E+00	2.6558E+00	-1.6962E-01	8.2527E-01	4.3890E-03	-1.6463E-04
4.2635E+00	2.6558E+00	-2.0822E-01	8.7217E-01	3.0534E-03	-1.3762E-04
4.2635E+00	2.6558E+00	-2.5496E-01	9.1324E-01	1.6356E-03	-7.1388E-05
4.2635E+00	2.6558E+00	-3.1268E-01	9.3922E-01	7.7575E-04	-1.1185E-05
4.2635E+00	2.6558E+00	-3.8350E-01	9.5324E-01	4.8314E-04	-1.7797E-06
4.2635E+00	2.6558E+00	-4.7025E-01	9.5644E-01	3.4933E-04	-1.4236E-06
4.2635E+00	2.6558E+00	-5.7684E-01	9.6595E-01	1.7812E-04	2.0675E-06
4.2635E+00	2.6558E+00	-7.0715E-01	9.7355E-01	7.9905E-05	2.1426E-07
4.2635E+00	2.6558E+00	-8.6615E-01	9.8224E-01	5.4925E-05	2.0508E-07
4.2635E+00	2.6558E+00	-1.0623E+00	9.8495E-01	4.8926E-05	1.5346E-07
4.2635E+00	2.6558E+00	0.0000E+00	6.1605E-02	5.8270E-04	1.6980E-05
4.2635E+00	2.6558E+00	1.0623E-03	6.1312E-02	5.8957E-04	1.7978E-05
4.2635E+00	2.6558E+00	2.1246E-03	6.0355E-02	5.5488E-04	1.5961E-05
4.2635E+00	2.6558E+00	3.5411E-03	5.8251E-02	5.3503E-04	1.8996E-05
4.2635E+00	2.6558E+00	4.2493E-03	5.6904E-02	5.1291E-04	1.7327E-05
4.2635E+00	2.6558E+00	5.7720E-03	5.6378E-02	5.1018E-04	2.2350E-05
4.2635E+00	2.6558E+00	6.3739E-03	5.9553E-02	6.4062E-04	3.5551E-05
4.2635E+00	2.6558E+00	7.7904E-03	9.0033E-02	2.2269E-03	1.7236E-04
4.2635E+00	2.6558E+00	9.5609E-03	1.5189E-01	5.9641E-03	3.9293E-04
4.2635E+00	2.6558E+00	1.1686E-02	2.1952E-01	9.2424E-03	4.1510E-04
4.2635E+00	2.6558E+00	1.4518E-02	2.9049E-01	1.0241E-02	2.8984E-04
4.2635E+00	2.6558E+00	1.7705E-02	3.3092E-01	1.0346E-02	2.2891E-04
4.2635E+00	2.6558E+00	2.1955E-02	3.8042E-01	1.0129E-02	1.2977E-04
4.2635E+00	2.6558E+00	2.6912E-02	4.1155E-01	1.0366E-02	9.6894E-05
4.2635E+00	2.6558E+00	3.2932E-02	4.5484E-01	1.0561E-02	6.6776E-05
4.2635E+00	2.6558E+00	4.1076E-02	4.9755E-01	1.0540E-02	-7.5841E-06
4.2635E+00	2.6558E+00	4.9929E-02	5.4126E-01	1.0446E-02	-7.8096E-05
4.2635E+00	2.6558E+00	6.1261E-02	5.8527E-01	9.4256E-03	-7.5758E-05
4.2635E+00	2.6558E+00	7.5071E-02	6.3109E-01	8.7605E-03	-1.4213E-04
4.2635E+00	2.6558E+00	9.2068E-02	6.7828E-01	7.7605E-03	-1.5022E-04
4.2635E+00	2.6558E+00	1.1261E-01	7.2521E-01	6.4950E-03	-1.5875E-04
4.2635E+00	2.6558E+00	1.3810E-01	7.7297E-01	5.4066E-03	-1.4784E-04
4.2635E+00	2.6558E+00	1.6997E-01	8.1894E-01	4.2220E-03	-1.2031E-04
4.2635E+00	2.6558E+00	2.0857E-01	8.6466E-01	3.1613E-03	-1.2086E-04
4.2635E+00	2.6558E+00	2.5531E-01	9.0566E-01	1.7946E-03	-7.5713E-05
4.2635E+00	2.6558E+00	3.1268E-01	9.3347E-01	8.4749E-04	-1.3862E-05
4.2635E+00	2.6558E+00	3.8314E-01	9.4494E-01	5.5647E-04	-4.2061E-06
4.2635E+00	2.6558E+00	4.7025E-01	9.5190E-01	3.9055E-04	-4.8289E-06
4.2635E+00	2.6558E+00	5.8074E-01	9.5654E-01	2.0566E-04	9.3730E-07
4.2635E+00	2.6558E+00	7.0680E-01	9.6683E-01	9.0594E-05	3.0407E-07
4.2635E+00	2.6558E+00	8.6721E-01	9.7139E-01	5.0533E-05	1.7830E-07
4.2635E+00	2.6558E+00	1.0623E+00	9.8377E-01	4.4960E-05	1.3604E-07

Table B.1-20 Hot-wire velocity measurements at the trailing edge,
1mm wire trip, Y / T = 2.656

B.2 BOUNDARY CONDITIONS, DESCRIPTION OF THE APPROACH FLOW

As described in section A.1, sections of the internal liner of the wind-tunnel side walls were removed to minimize blockage-induced pressure gradients. Results to be presented in section D.3 indeed show that these pressure gradients were small. It therefore seems that the present flows would be most easily computed by assuming them to be unbounded in the spanwise direction. Hot-wire velocity profiles presented in section B.1 suggest that the flow past the wing is closely two-dimensional near its mid span. This implies that the flow on the test wall is independent of the height of the wing.

Given these assumptions, the problem of specifying boundary conditions reduces to one in which only properties of the test-wall boundary layer need be specified at a position sufficiently far upstream for it to be two-dimensional in the time mean. This position was chosen to be 4.29 chord lengths ($18.2T$) upstream of the wing leading edge. Mean-velocity and turbulence stress profiles were measured at this location, on the centerline of the test section, using the single-hot-wire technique described in section E of this report. These measurements were made at the highest test Reynolds number, corresponding to a free-stream velocity of 27 m/s. They are plotted in figures B.2-1 through B.2-3 and are tabulated in table B.2-1. The displacement thickness, momentum thickness and skin-friction coefficient (based on U_{ref}) deduced from these data are $0.41T$, $0.30T$ and 3.2×10^{-3} respectively, where T is the maximum thickness of the wing.

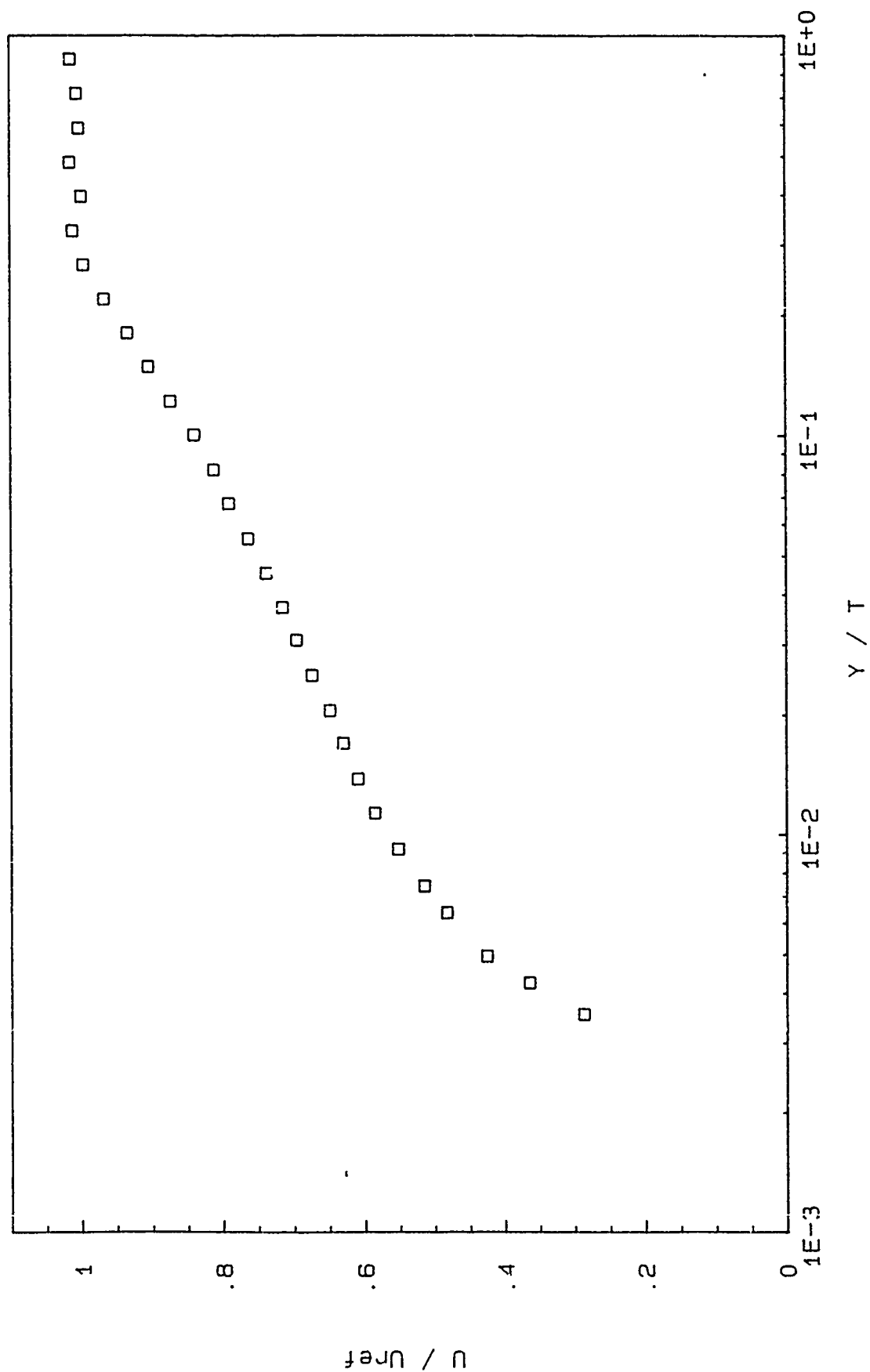


Figure B.2-1 Mean velocity profile measured 4.29 chord lengths upstream of the wing,
 $U_{ref} = 27\text{m/s}$.

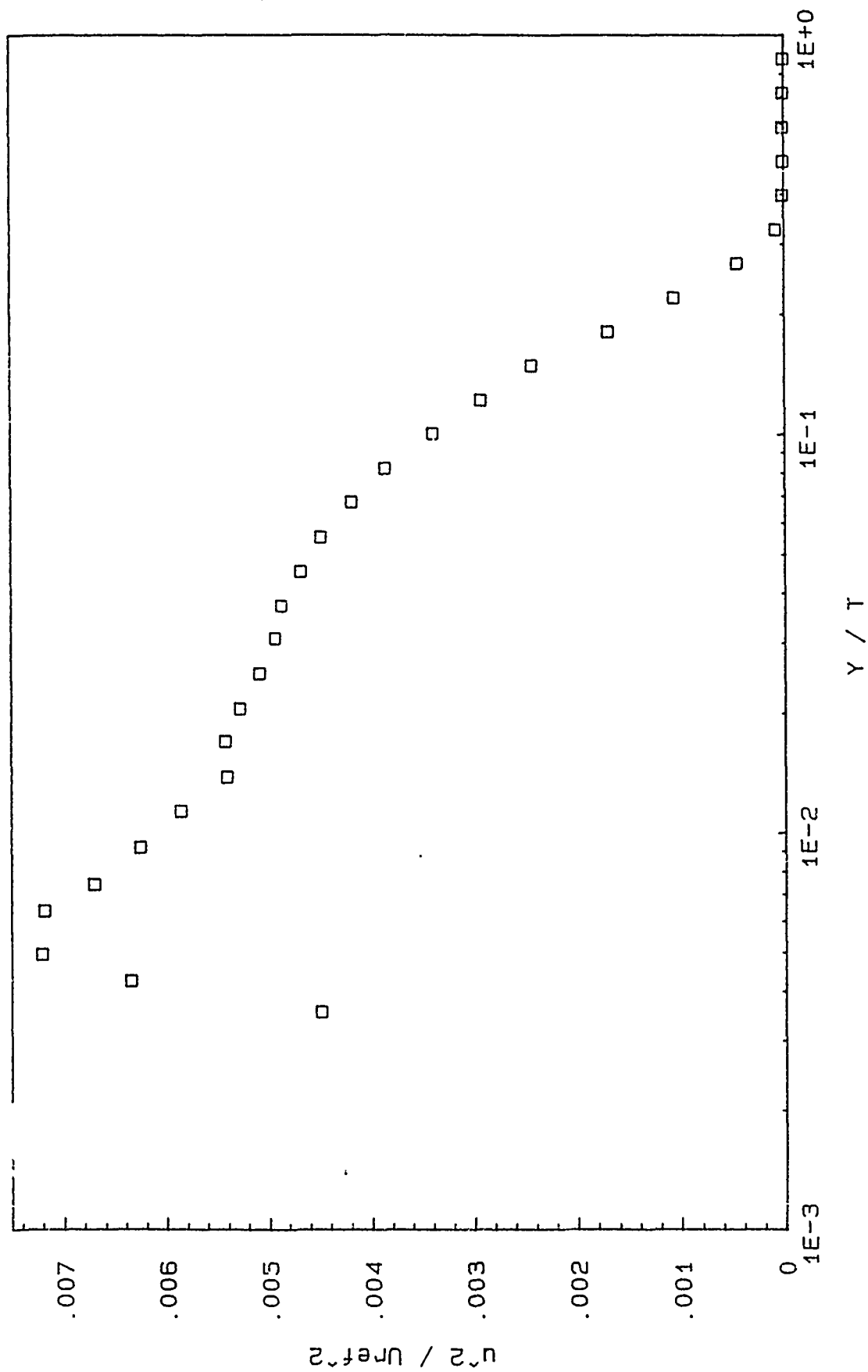


Figure B.2-2 Profile of $\overline{u^2} / U_{ref}^2$ measured 4.29 chord lengths upstream of the wing,
 $U_{ref} = 27\text{m/s}$.

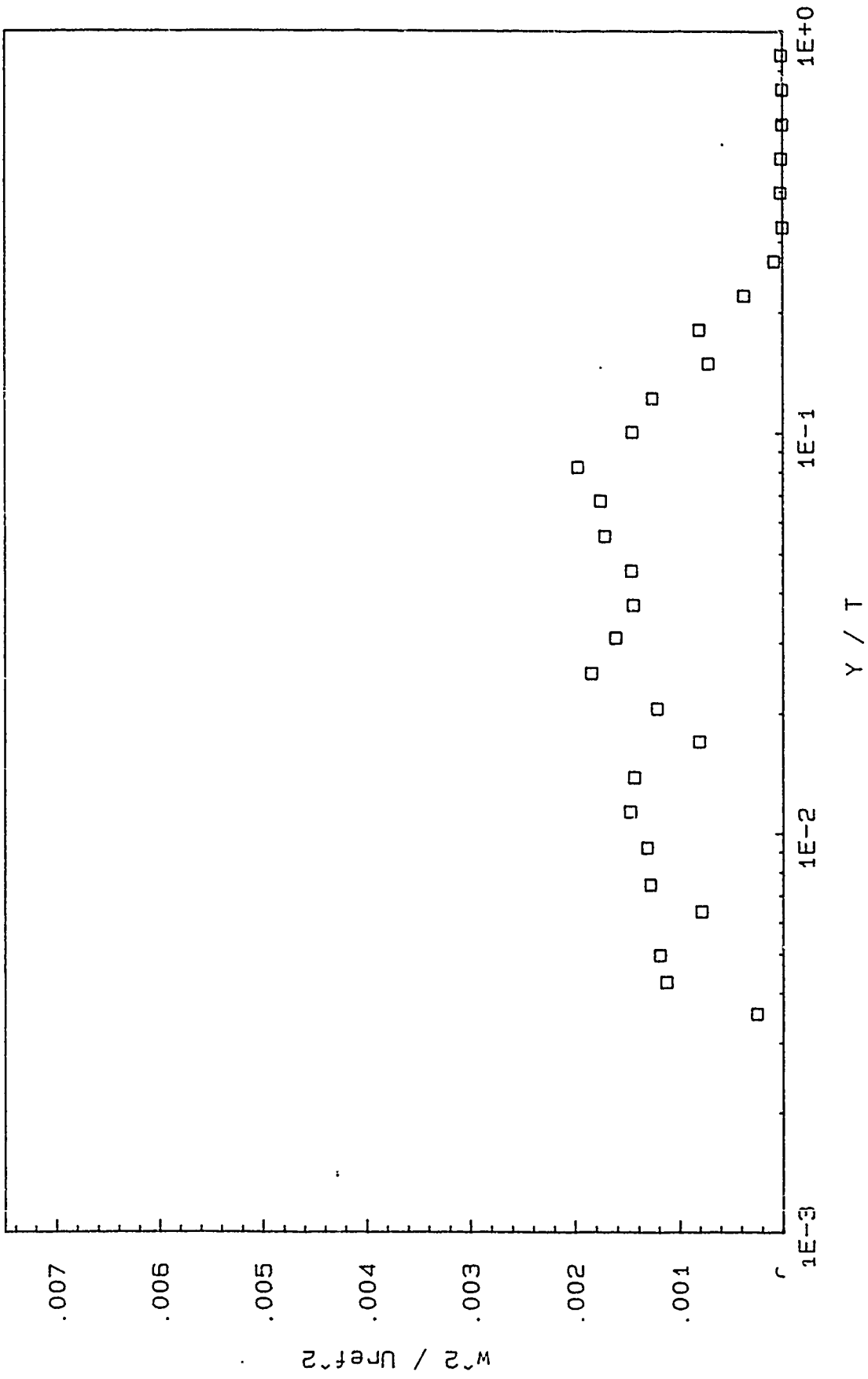


Figure B.2-3 Profile of $\overline{w^2 / U_{ref}^2}$ measured 4.29 chord lengths upstream of the wing,
 $U_{ref} = 27m/s$.

```
velocity: measurements obtained using the single-sensor hot wire probe
flow temperature (degree centigrade) = 25
density (g/cm3) = 1.095
viscosity (m2/sec) = 1.650E-05
hydrostatic pressure (Pascals) = 9373
velocity of undisturbed free stream (m/sec) = 26.99
location of traverse: x = -4.25 z/T = 0 (x/T = -18.24)
```

Uref1	Uref2	Uref1	Uref2
0.037E-03	0.285E-03	0.449E-02	0.051E-03
0.041E-03	0.364E-03	0.635E-02	0.112E-02
0.045E-03	0.425E+00	0.720E-02	0.118E-02
0.048E-03	0.485E+00	0.718E-02	0.783E-03
0.074E-03	0.515E-03	0.870E-02	0.126E-02
0.091E-03	0.532E+00	0.825E-02	0.131E-02
0.110E-03	0.555E+00	0.580E-02	0.147E-02
0.135E-03	0.609E-03	0.541E-02	0.143E-02
0.169E-03	0.629E-03	0.542E-02	0.805E-03
0.215E-03	0.648E+00	0.526E-02	0.121E-02
0.253E-03	0.741E+00	0.588E-02	0.184E-02
0.300E-03	0.690E-03	0.495E-02	0.161E-02
0.371E-03	0.160E-03	0.487E-02	0.144E-02
0.453E-03	0.723E-03	0.469E-02	0.146E-02
0.552E-03	0.765E+00	0.442E-02	0.171E-02
0.675E-03	0.790E-03	0.419E-02	0.154E-02
0.821E-03	0.812E-03	0.385E-02	0.196E-02
0.100E+00	0.840E+00	0.339E-02	0.145E-02
0.121E+00	0.873E+00	0.292E-02	0.125E-02
0.148E+00	0.904E+00	0.243E-02	0.715E-03
0.180E+00	0.934E-03	0.169E-02	0.803E-03
0.218E+00	0.966E+00	0.105E-02	0.370E-03
0.268E+00	0.995E+00	0.452E-03	0.825E-04
0.326E+00	0.101E+00	0.849E-04	0.237E-05
0.392E+00	0.995E-03	0.156E-04	0.204E-04
0.467E+00	0.101E+00	0.116E-04	0.151E-04
0.556E+00	0.100E+00	0.190E-04	0.502E-05
0.745E+00	0.100E+00	0.923E-05	0.549E-05
0.872E+00	0.101E-03	0.883E-05	0.154E-04

Table E.2-1 Hot-wire velocity measurements at the wind-tunnel throat.
X/T = 18.2.

C. SURFACE OIL-FLOW VISUALIZATIONS

Surface-oil-flow visualizations have been performed on the wind tunnel floor and the wing. To preserve these we used a technique devised by Peter Sutton at Cambridge university for low-speed flows. The technique is as follows.

Opaque black self-adhesive plastic film is applied to the surfaces on which the oil-flow visualization is to be performed. A conventional paint mixture of finely ground titanium dioxide (TiO_2), kerosene and a small amount of oleic acid is used. The relative proportions of these is varied depending on the magnitude of the shear stresses expected. We found a mixture of 15 parts kerosene, 5 parts TiO_2 and 1 part oleic acid to be ideal for the wing-body junction flow at an approach boundary-layer Reynolds number Re_θ of 6700. After a thin coat of paint has been applied, the wind tunnel is switched on and left running at the desired flow conditions until the paint dries. The plastic film may then be peeled away with the oil-flow record intact on its surface. To make the oil-flow permanent it can be sprayed with a fixer (of the type artists use on charcoal drawings) or it can be covered with clear plastic film. Photocopies may then be made. In fact, a good photocopier can be used to increase or decrease the contrast and improve the record or highlight particular features.

Oil-flow records obtained at approach-boundary-layer Reynolds numbers Re_θ of 6700 and 4500 are shown in figures C-1 and C-2. Ideally the streaks on these diagrams indicate the direction of the time-mean wall shear stress and therefore should lie along the limiting streamlines at the surface. However, pressure forces can be a significant influence if the oil film gets too thick in regions where the shear stresses are small (such as near separation). This effect was minimized by applying the paint very sparingly, but at $\text{Re}_\theta = 4500$ some

accumulation of the oil towards the trailing edge of the wing was unavoidable.

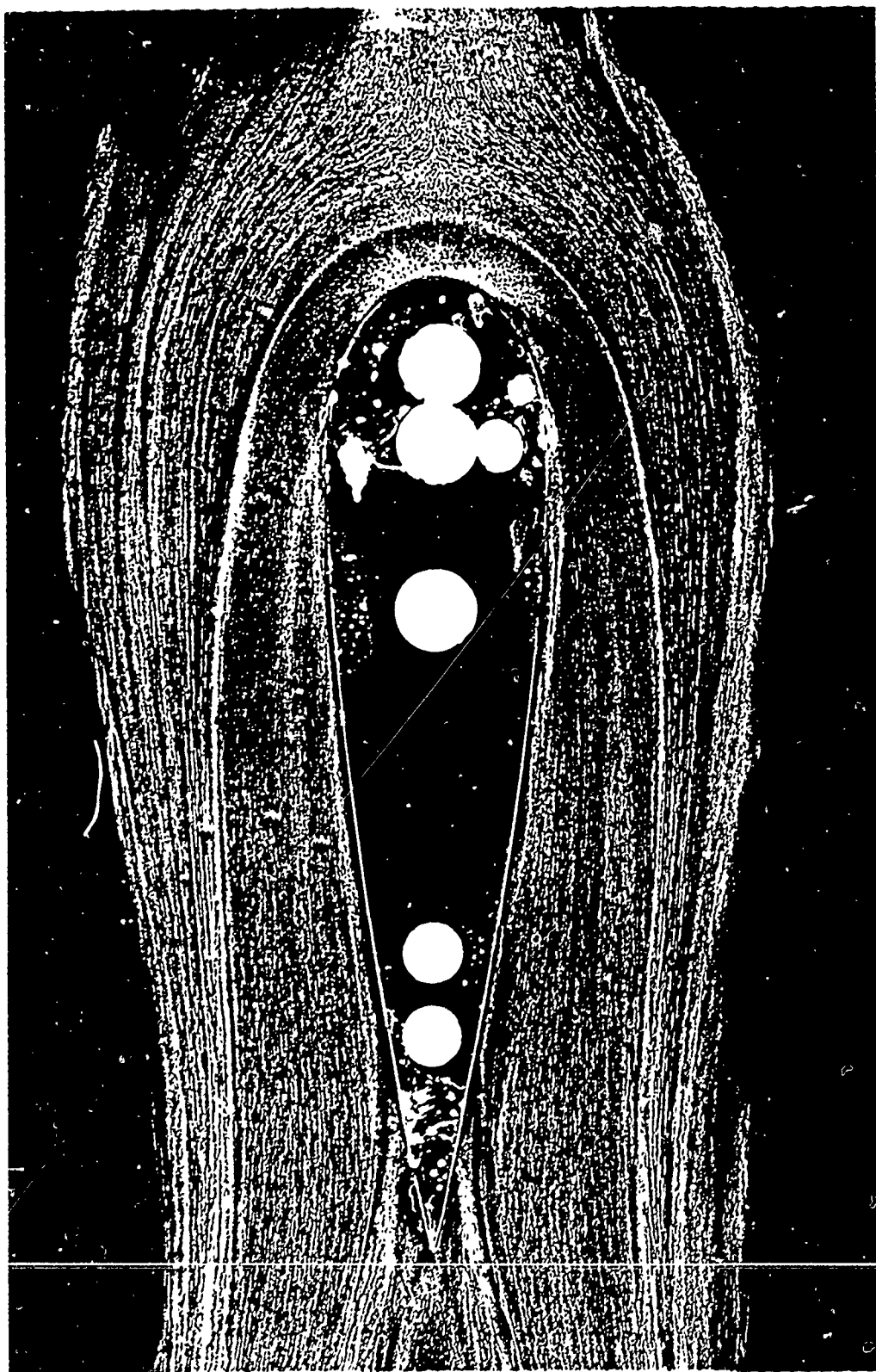


Figure C-1 Surface oil-flow visualization on the test wall surrounding the wing for $Re_0 = 6700$.

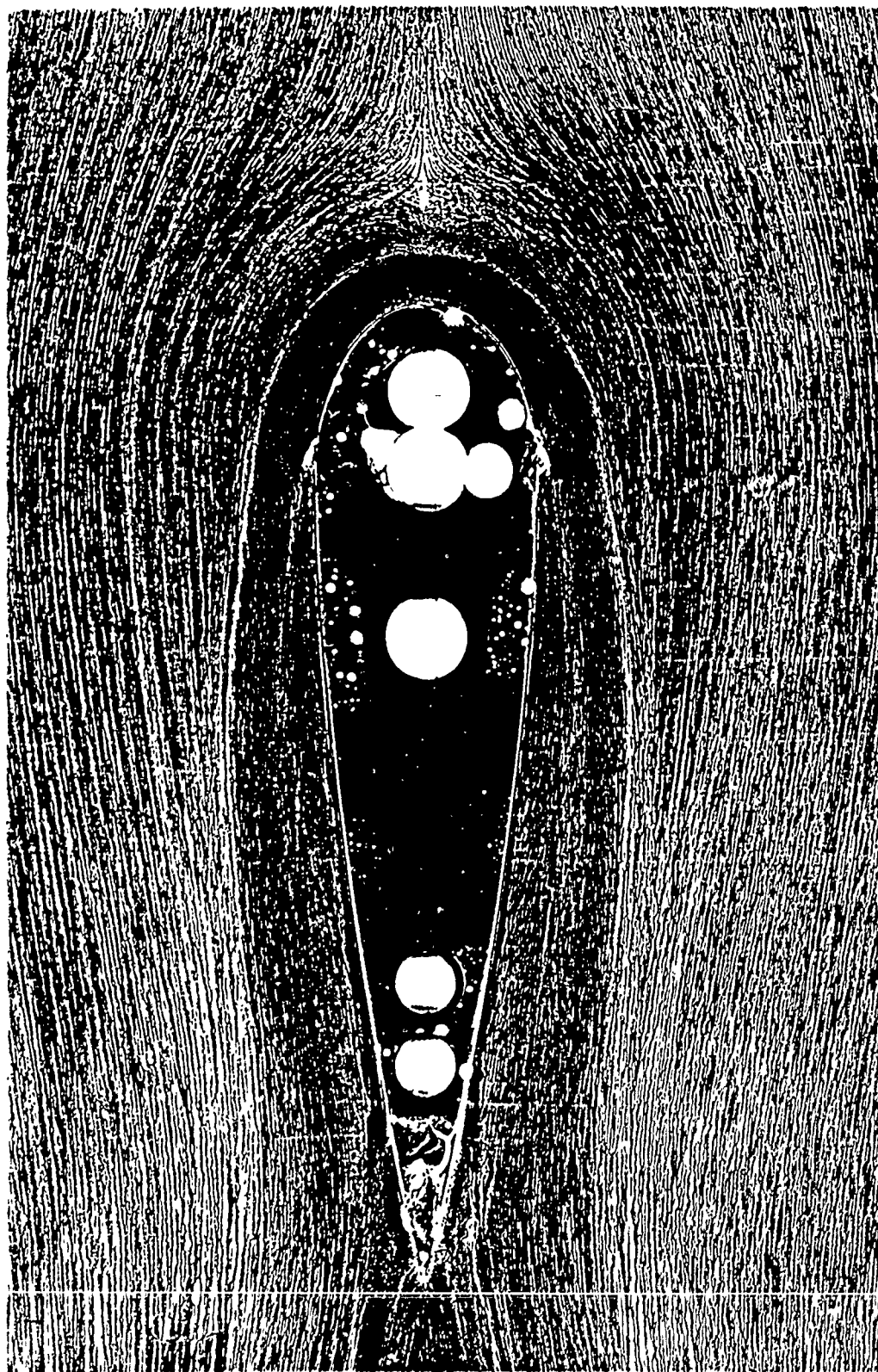


Figure C-2 Surface oil-flow visualization on the test wall surrounding the wing for $Re_{\theta} = 4500$.

D. MEASUREMENTS OF TIME-MEAN WALL STATIC PRESSURE

Measurements of time-mean static pressure have been made on the wing surface and on the surrounding test wall using an array of 1mm diameter tappings. Data were taken at all three Reynolds numbers using a scanivalve and conventional inclined manometers.

Pressures are plotted in terms of the coefficient C_p . Defined as

$$C_p = (p - p_{ref}) / (p_o - p_{ref})$$

where p_o and p_{ref} are respectively the stagnation and static pressures measured in the potential flow at the wind-tunnel throat using a pitot-static tube.

Uncertainties in the pressure measurements at $Re_\theta = 6700, 4500$ and 2500 are estimated to be $\pm 0.005, \pm 0.008$ and ± 0.039 in C_p respectively. Bias errors are expected to be negligible.

D.1 PRESSURE MEASUREMENTS ON THE WING

Positions of pressure tappings on the wing are shown in figure D.1-1. Data are presented in the figures and table following. Note that there is an uncertainty of about $\pm 0.3\text{mm}$ ($.004T$) in the position of static pressure ports which is significant in measurements made upstream of the maximum thickness. Note also that the trip wire has affected the pressure measurements made immediately downstream of it.

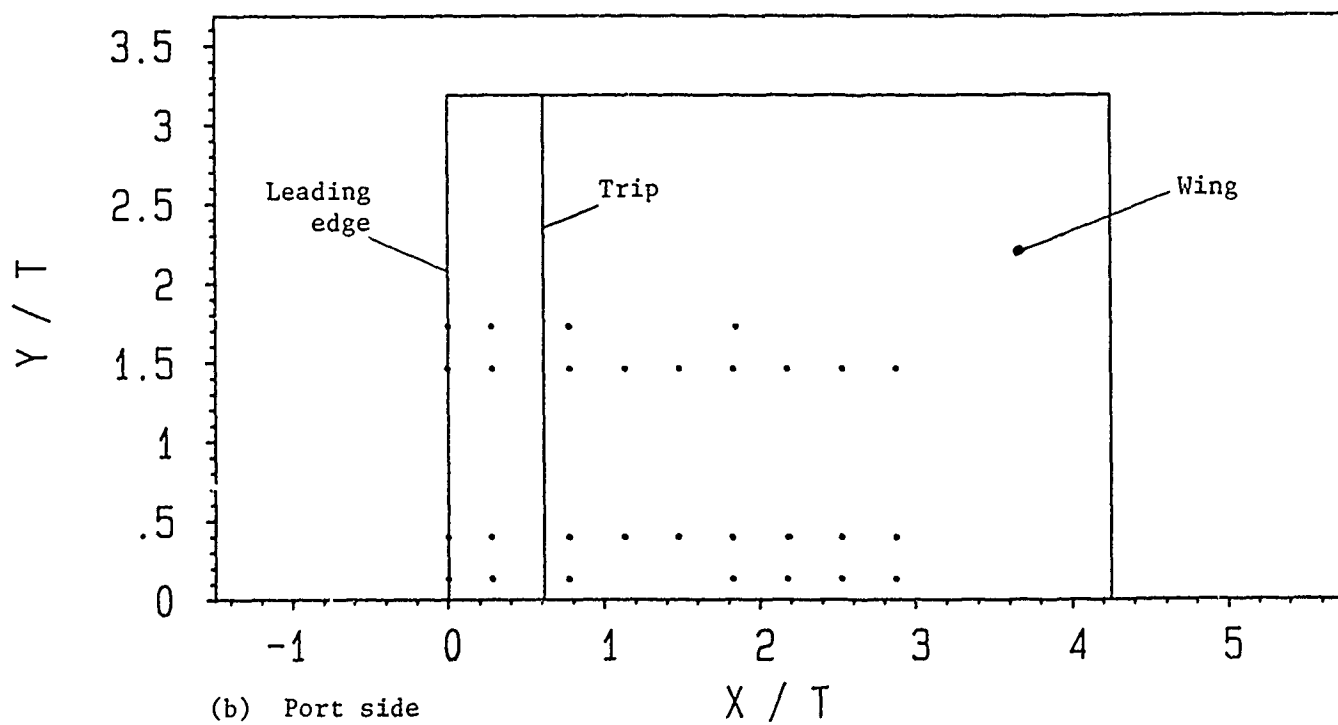
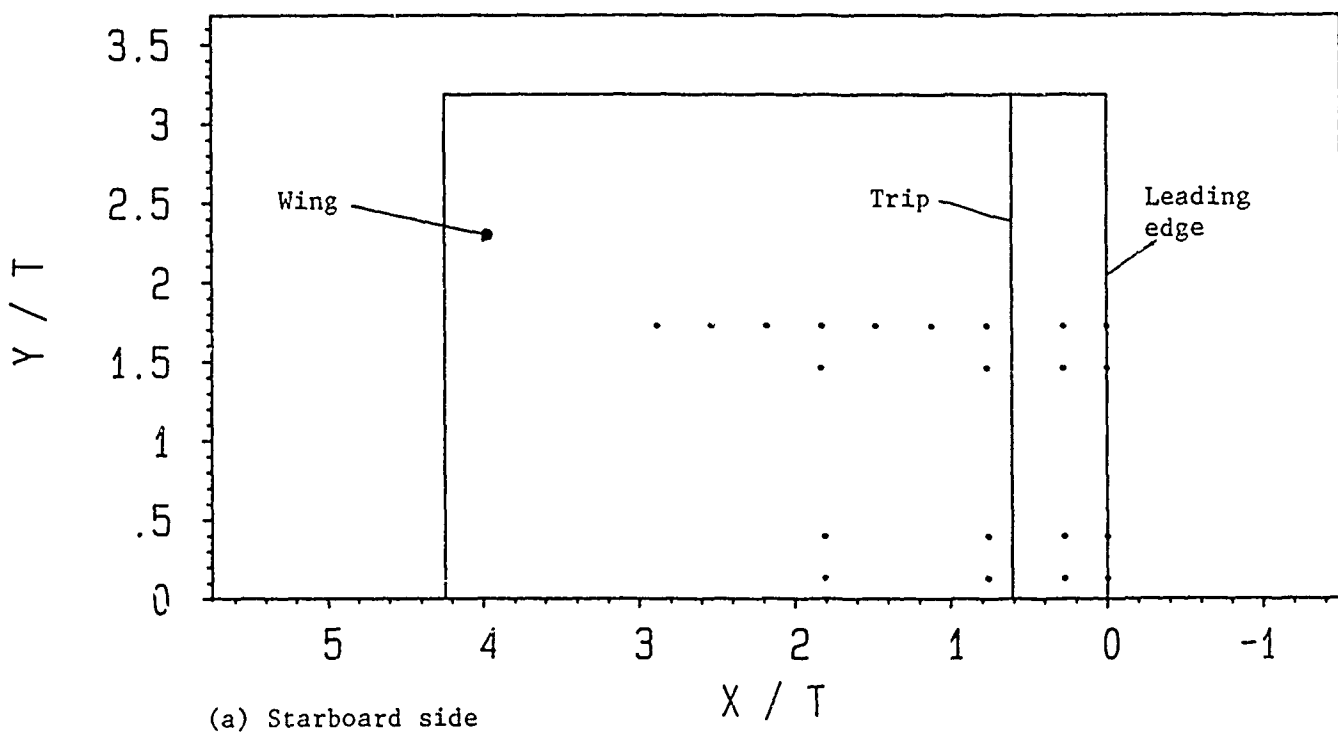


Figure D.1-1 Positions of pressure tappings on the wing surface projected on to an XZ plane.

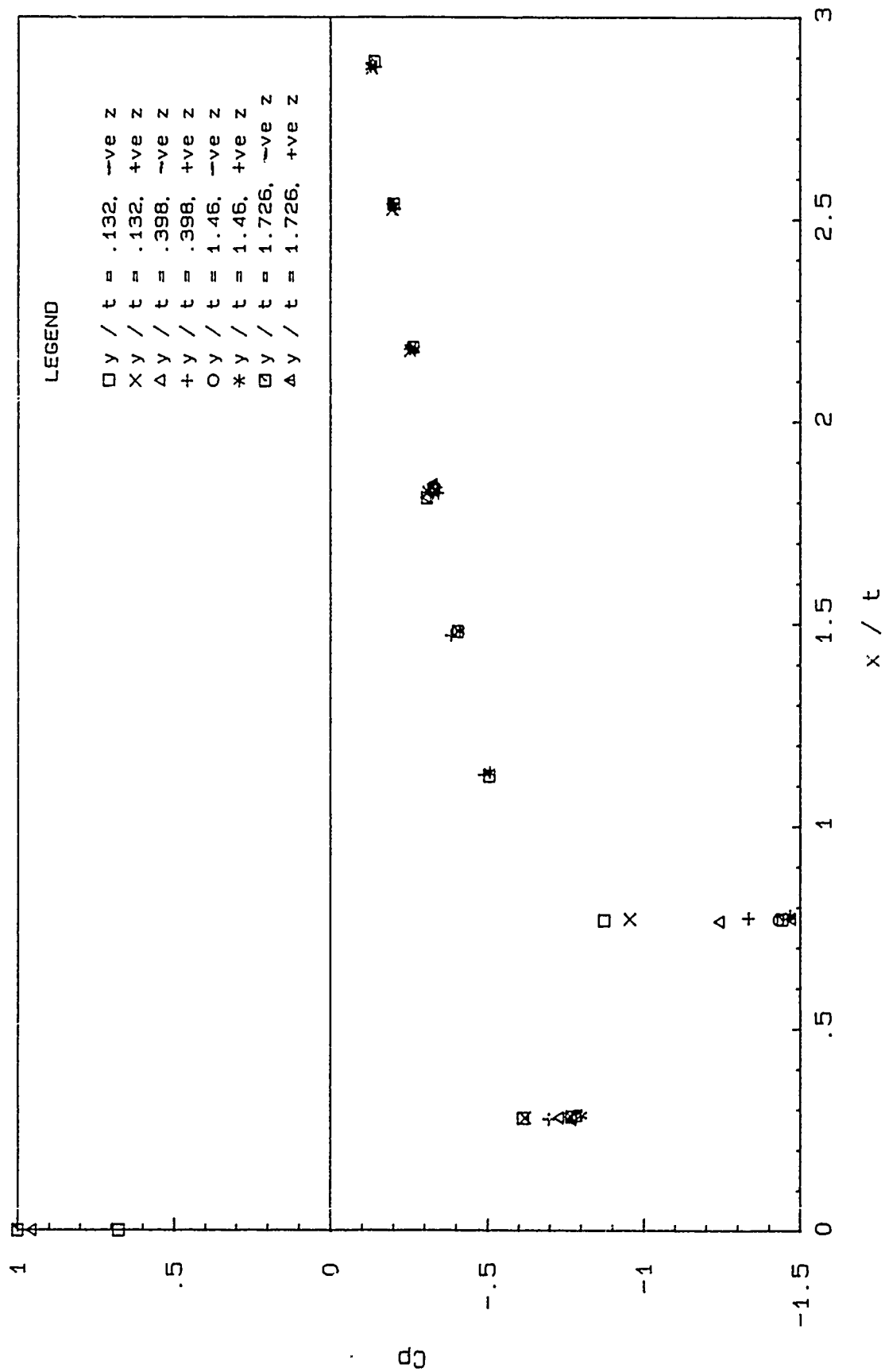


Figure D.1-2 Distributions of time-mean static pressure on the wing surface at $Re_\theta = 6701$.

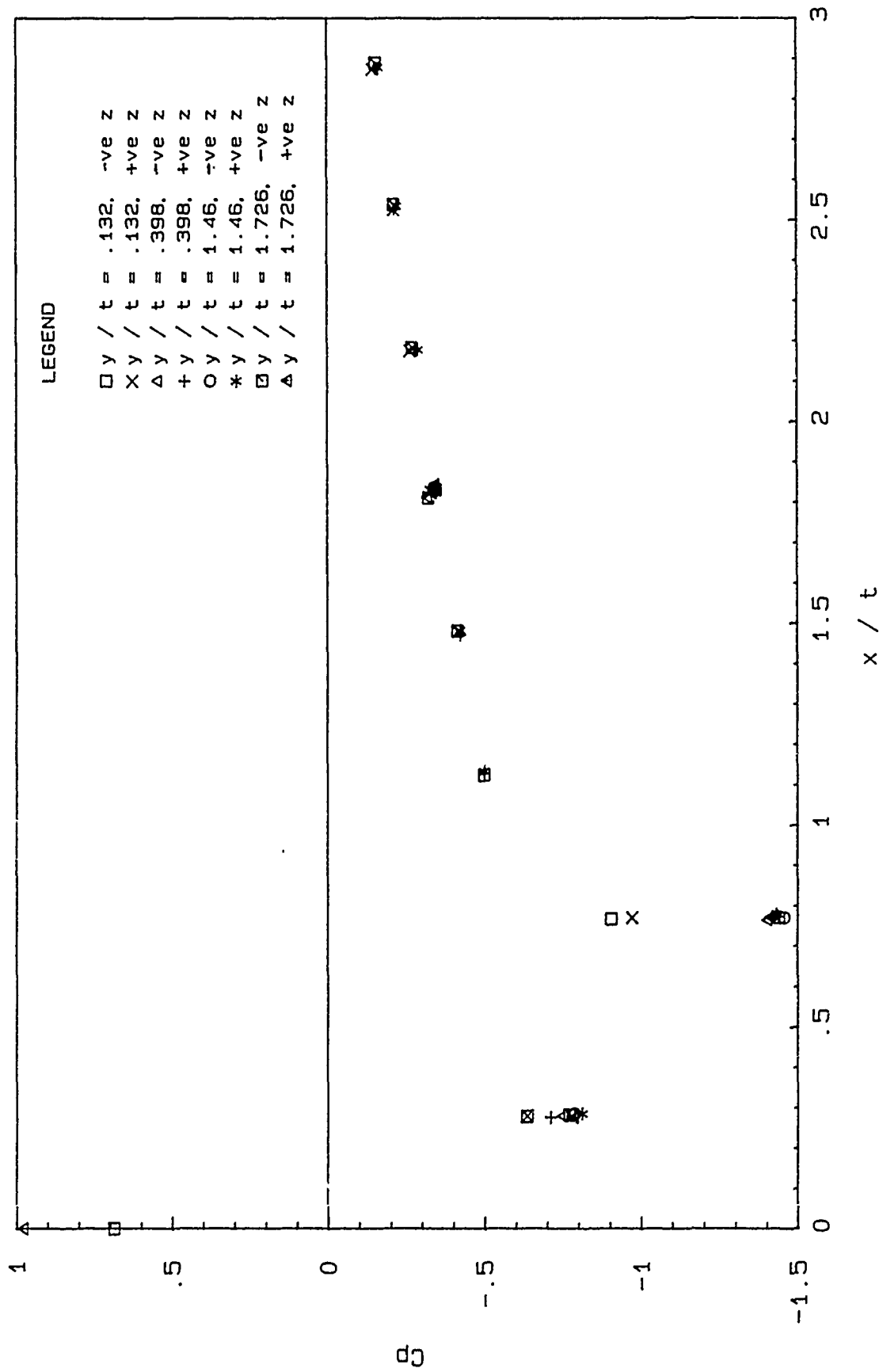


Figure D.1-3 Distributions of time-mean static pressure on the wing surface at $Re_{\theta} = 4423$.

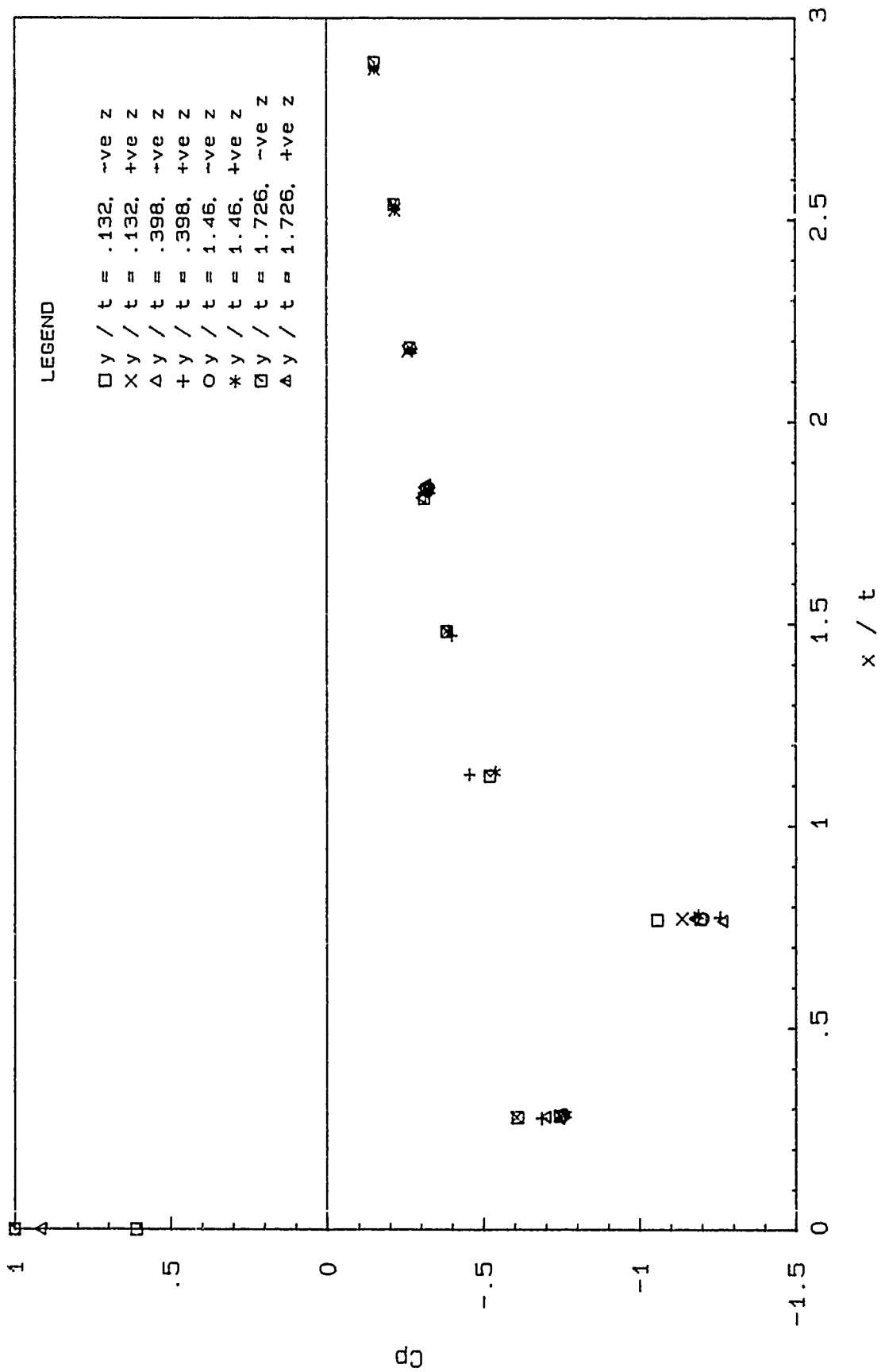


Figure D.1-4 Distributions of time-mean static pressure on the wing surface at $Re_\theta = 2423$.

File E67270.RES

Time-mean static pressures on the wing surface

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.089812

viscosity (meters squared per second) = 1.690531E-05

Atmospheric pressure (Pascals) = 93250

Velocity of undisturbed free stream (Uref, in m/s) = 27.606

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092276E-03

Estimated momentum thickness Reynolds number = 6701.575

X/T	Y/T	Z/T	Cp
0.0000E+00	1.3279E-01	0.0000E+00	6.7699E-01
2.7838E-01	1.3279E-01	-3.8877E-01	-4.1465E-01
7.6681E-01	1.3279E-01	-3.0012E-01	-9.7351E-01
1.8105E+00	1.3279E-01	-4.3468E-01	-3.0732E-01
2.7869E-01	1.3279E-01	3.8894E-01	-6.2056E-01
7.7031E-01	1.3279E-01	5.0011E-01	-9.5609E-01
1.8247E+00	1.3279E-01	4.3311E-01	-3.1130E-01
2.1748E+00	1.3279E-01	3.9042E-01	-2.5312E-01
2.5243E+00	1.3279E-01	3.4071E-01	-1.9740E-01
2.8736E+00	1.3279E-01	2.8493E-01	-1.3100E-01
0.0000E+00	3.9837E-01	0.0000E+00	9.4952E-01
2.7963E-01	3.9837E-01	-3.8944E-01	-7.3352E-01
7.6461E-01	3.9837E-01	-5.0013E-01	-1.2457E+00
1.8125E+00	3.9837E-01	-4.3446E-01	-3.0805E-01
2.7558E-01	3.9837E-01	3.8725E-01	-6.9689E-01
7.7350E-01	3.9837E-01	5.0010E-01	-1.3348E+00
1.1271E+00	3.9837E-01	4.9042E-01	-4.8755E-01
1.4712E+00	3.9837E-01	4.6749E-01	-3.8234E-01
1.8226E+00	3.9837E-01	4.3334E-01	-3.4187E-01
2.1794E+00	3.9837E-01	3.8981E-01	-2.5118E-01
2.5261E+00	3.9837E-01	3.4045E-01	-2.0451E-01
2.8764E+00	3.9837E-01	2.8446E-01	-1.4432E-01
0.0000E+00	1.4607E+00	0.0000E+00	1.0025E+00
2.8463E-01	1.4607E+00	-3.9210E-01	-7.8779E-01
7.6991E-01	1.4607E+00	-5.0011E-01	-1.4316E+00
1.8357E+00	1.4607E+00	-4.3190E-01	-3.3196E-01
2.8526E-01	1.4607E+00	3.9244E-01	-8.0322E-01
7.7881E-01	1.4607E+00	5.0008E-01	-1.4687E+00
1.1327E+00	1.4607E+00	4.9014E-01	-5.0683E-01
1.4818E+00	1.4607E+00	4.6660E-01	-4.1075E-01
1.8300E+00	1.4607E+00	4.3253E-01	-3.3983E-01
2.1769E+00	1.4607E+00	3.9014E-01	-2.6811E-01
2.5331E+00	1.4607E+00	3.3938E-01	-1.9918E-01
2.8771E+00	1.4607E+00	2.8434E-01	-1.2745E-01
0.0000E+00	1.7263E+00	0.0000E+00	9.9943E-01
2.8213E-01	1.7263E+00	-3.9678E-01	-7.6831E-01
7.6991E-01	1.7263E+00	-5.0011E-01	-1.4434E+00
1.1229E+00	1.7263E+00	-4.9063E-01	-5.0531E-01
1.4805E+00	1.7263E+00	-4.6671E-01	-4.0434E-01
1.8307E+00	1.7263E+00	-4.3245E-01	-3.7771E-01
2.1822E+00	1.7263E+00	-3.8944E-01	-2.6300E-01
2.5373E+00	1.7263E+00	-3.3874E-01	-2.0094E-01
2.8736E+00	1.7263E+00	-2.8234E-01	-1.3930E-01
2.8736E-01	1.7263E+00	3.8742E-01	-7.7358E-01
7.7350E-01	1.7263E+00	5.0011E-01	-1.4745E+00
1.8441E+00	1.7263E+00	4.3073E-01	-3.2899E-01

Table D.1-1 Time-mean static pressures on the wing surface at $Re_\theta = 6701$.

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Time-mean static pressures on the wing surface

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.089812

viscosity (meters squared per second) = 1.690531E-05

Atmospheric pressure (Pascals) = 93250

Velocity of undisturbed free stream (Uref, in m/s) = 16.426

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.540036E-03

Estimated momentum thickness Reynolds number = 4423.842

X/T	Y/T	Z/T	Cp
0.0000E+00	1.3279E-01	0.0000E+00	6.8642E-01
2.7838E-01	1.3279E-01	-3.8877E-01	-6.3557E-01
7.6681E-01	1.3279E-01	-5.0012E-01	-9.0522E-01
1.8105E+00	1.3279E-01	-4.3468E-01	-3.2202E-01
2.7869E-01	1.3279E-01	3.8894E-01	-6.3557E-01
7.7031E-01	1.3279E-01	5.0011E-01	-9.7290E-01
1.8247E+00	1.3279E-01	4.3311E-01	-3.3050E-01
2.1748E+00	1.3279E-01	3.9042E-01	-2.6270E-01
2.5243E+00	1.3279E-01	3.4071E-01	-2.1186E-01
2.8736E+00	1.3279E-01	2.8493E-01	-1.4406E-01
0.0000E+00	3.9837E-01	0.0000E+00	9.7454E-01
2.7963E-01	3.9837E-01	-3.8944E-01	-7.5421E-01
7.6461E-01	3.9837E-01	-5.0013E-01	-1.4067E+00
1.8125E+00	3.9837E-01	-4.3446E-01	-3.2202E-01
2.7558E-01	3.9837E-01	3.8725E-01	-7.1064E-01
7.7350E-01	3.9837E-01	5.0010E-01	-1.4382E+00
1.1271E+00	3.9837E-01	4.9042E-01	-4.9998E-01
1.4712E+00	3.9837E-01	4.6749E-01	-4.2371E-01
1.8226E+00	3.9837E-01	4.3334E-01	-3.4745E-01
2.1794E+00	3.9837E-01	3.8981E-01	-2.7965E-01
2.5261E+00	3.9837E-01	3.4045E-01	-2.1186E-01
2.8764E+00	3.9837E-01	2.8446E-01	-1.5254E-01
0.0000E+00	1.4607E+00	0.0000E+00	1.0237E+00
2.8463E-01	1.4607E+00	-3.9210E-01	-7.8811E-01
7.6991E-01	1.4607E+00	-5.0011E-01	-1.4576E+00
1.8357E+00	1.4607E+00	-4.3190E-01	-3.3897E-01
2.8526E-01	1.4607E+00	3.9244E-01	-8.1216E-01
7.7881E-01	1.4607E+00	5.0008E-01	-1.4322E+00
1.1327E+00	1.4607E+00	4.9014E-01	-4.9998E-01
1.4818E+00	1.4607E+00	4.6660E-01	-4.2371E-01
1.8300E+00	1.4607E+00	4.3253E-01	-3.4745E-01
2.1769E+00	1.4607E+00	3.9014E-01	-2.8813E-01
2.5331E+00	1.4607E+00	3.3938E-01	-2.2033E-01
2.8771E+00	1.4607E+00	2.8434E-01	-1.6101E-01
0.0000E+00	1.7263E+00	0.0000E+00	1.0270E+00
2.8213E-01	1.7263E+00	-3.9078E-01	-7.7116E-01
7.6991E-01	1.7263E+00	-5.0011E-01	-1.4406E+00
1.1229E+00	1.7263E+00	-4.9063E-01	-4.9998E-01
1.4805E+00	1.7263E+00	-4.6671E-01	-4.1524E-01
1.8307E+00	1.7263E+00	-4.3243E-01	-3.4686E-01
2.1822E+00	1.7263E+00	-3.8944E-01	-2.7072E-01
2.5373E+00	1.7263E+00	-3.3874E-01	-2.1166E-01
2.8890E+00	1.7263E+00	-2.8234E-01	-1.5254E-01
2.7589E-01	1.7263E+00	3.8742E-01	-7.8811E-01
7.7102E-01	1.7263E+00	5.0011E-01	-1.4152E+00
1.8441E+00	1.7263E+00	4.3096E-01	-3.4745E-01

Table D.1-2 Time-mean static pressures on the wing surface at $Re_0 = 4423$.

File E11225.RES

Time-mean static pressures on the wing surface

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.098461

viscosity (meters squared per second) = 1.675057E-05

Atmospheric pressure (Pascals) = 93990

Velocity of undisturbed free stream (Uref, in m/s) = 8.324001

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 5.201149E-03

Estimated momentum thickness Reynolds number = 2591.99

X/T	Y/T	Z/T	Cp
0.0000E+00	1.3279E-01	0.0000E+00	6.0888E-01
2.7838E-01	1.3279E-01	-3.8877E-01	-6.0971E-01
7.6681E-01	1.3279E-01	-5.0012E-01	-1.0572E+00
1.8105E+00	1.3279E-01	-4.3468E-01	-3.1053E-01
2.7869E-01	1.3279E-01	3.8894E-01	-6.0592E-01
7.7031E-01	1.3279E-01	5.0011E-01	-1.1361E+00
1.8247E+00	1.3279E-01	4.3311E-01	-3.1053E-01
2.1748E+00	1.3279E-01	3.9042E-01	-2.5752E-01
2.5243E+00	1.3279E-01	3.4071E-01	-2.1586E-01
2.8736E+00	1.3279E-01	2.8493E-01	-1.5148E-01
0.0000E+00	3.9837E-01	0.0000E+00	9.1267E-01
2.7963E-01	3.9837E-01	-3.8944E-01	-7.0438E-01
7.6461E-01	3.9837E-01	-5.0013E-01	-1.2702E+00
1.8125E+00	3.9837E-01	-4.3446E-01	-3.0589E-01
2.7558E-01	3.9837E-01	3.8725E-01	-6.8545E-01
7.7350E-01	3.9837E-01	5.0010E-01	-1.2573E+00
1.1271E+00	3.9837E-01	4.9042E-01	-4.5444E-01
1.4712E+00	3.9837E-01	4.6749E-01	-3.9763E-01
1.8226E+00	3.9837E-01	4.3334E-01	-3.2568E-01
2.1794E+00	3.9837E-01	3.8981E-01	-2.7266E-01
2.5261E+00	3.9837E-01	3.4045E-01	-2.1586E-01
2.8764E+00	3.9837E-01	2.8446E-01	-1.5148E-01
0.0000E+00	1.4607E+00	0.0000E+00	9.9995E-01
2.8463E-01	1.4607E+00	-3.9210E-01	-7.5740E-01
7.6991E-01	1.4607E+00	-5.0011E-01	-1.2043E+00
1.8357E+00	1.4607E+00	-4.3190E-01	-3.2693E-01
2.8526E-01	1.4607E+00	3.9244E-01	-7.6497E-01
7.7981E-01	1.4607E+00	5.0008E-01	-1.1991E+00
1.1327E+00	1.4607E+00	4.9014E-01	-5.3775E-01
1.4818E+00	1.4607E+00	4.6660E-01	-3.8627E-01
1.8300E+00	1.4607E+00	4.3253E-01	-3.3069E-01
2.1769E+00	1.4607E+00	3.9014E-01	-2.7266E-01
2.5331E+00	1.4607E+00	3.3938E-01	-2.1965E-01
2.8771E+00	1.4607E+00	2.8434E-01	-1.5148E-01
0.0000E+00	1.7263E+00	0.0000E+00	9.9995E-01
2.8213E-01	1.7263E+00	-3.9078E-01	-7.4406E-01
7.6991E-01	1.7263E+00	-5.0011E-01	-1.1950E+00
1.1229E+00	1.7263E+00	-4.9063E-01	-5.2009E-01
1.4805E+00	1.7263E+00	-4.6671E-01	-3.8249E-01
1.8307E+00	1.7263E+00	-4.3245E-01	-3.1811E-01
2.1822E+00	1.7263E+00	-3.8944E-01	-2.6509E-01
2.5373E+00	1.7263E+00	-3.3874E-01	-2.1420E-01
2.8890E+00	1.7263E+00	-2.8234E-01	-1.5148E-01
2.7589E-01	1.7263E+00	3.8742E-01	-7.4983E-01
7.7102E-01	1.7263E+00	5.0011E-01	-1.1800E+00
1.8441E+00	1.7263E+00	4.3096E-01	-3.2189E-01

Table D.1-3 Time-mean static pressures on the wing surface at $Re_0 = 2592$.

D.2 PRESSURE MEASUREMENTS ON THE TEST WALL

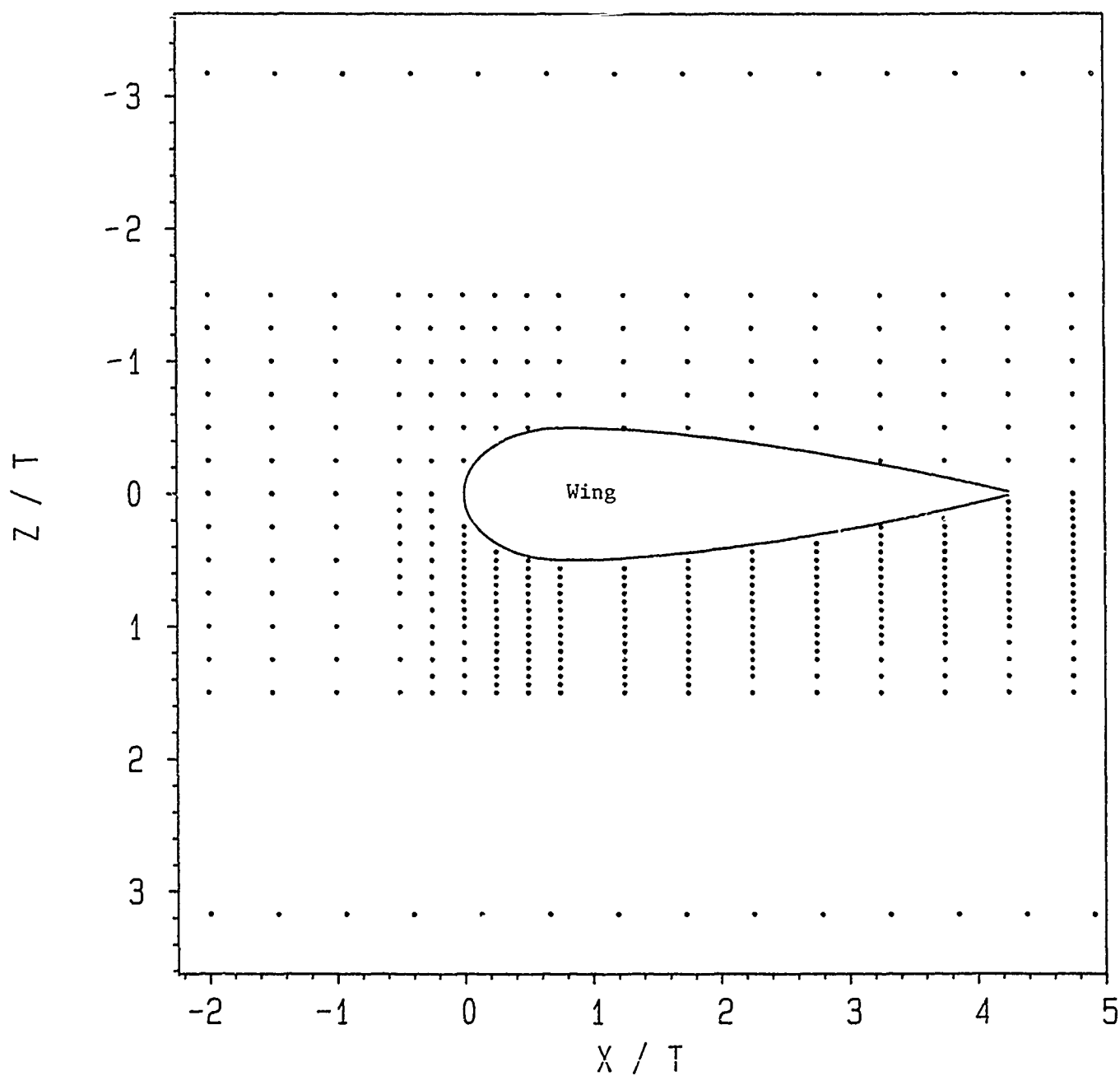


Figure D.2-1 Positions of pressure tapings on the test wall surrounding the wing.

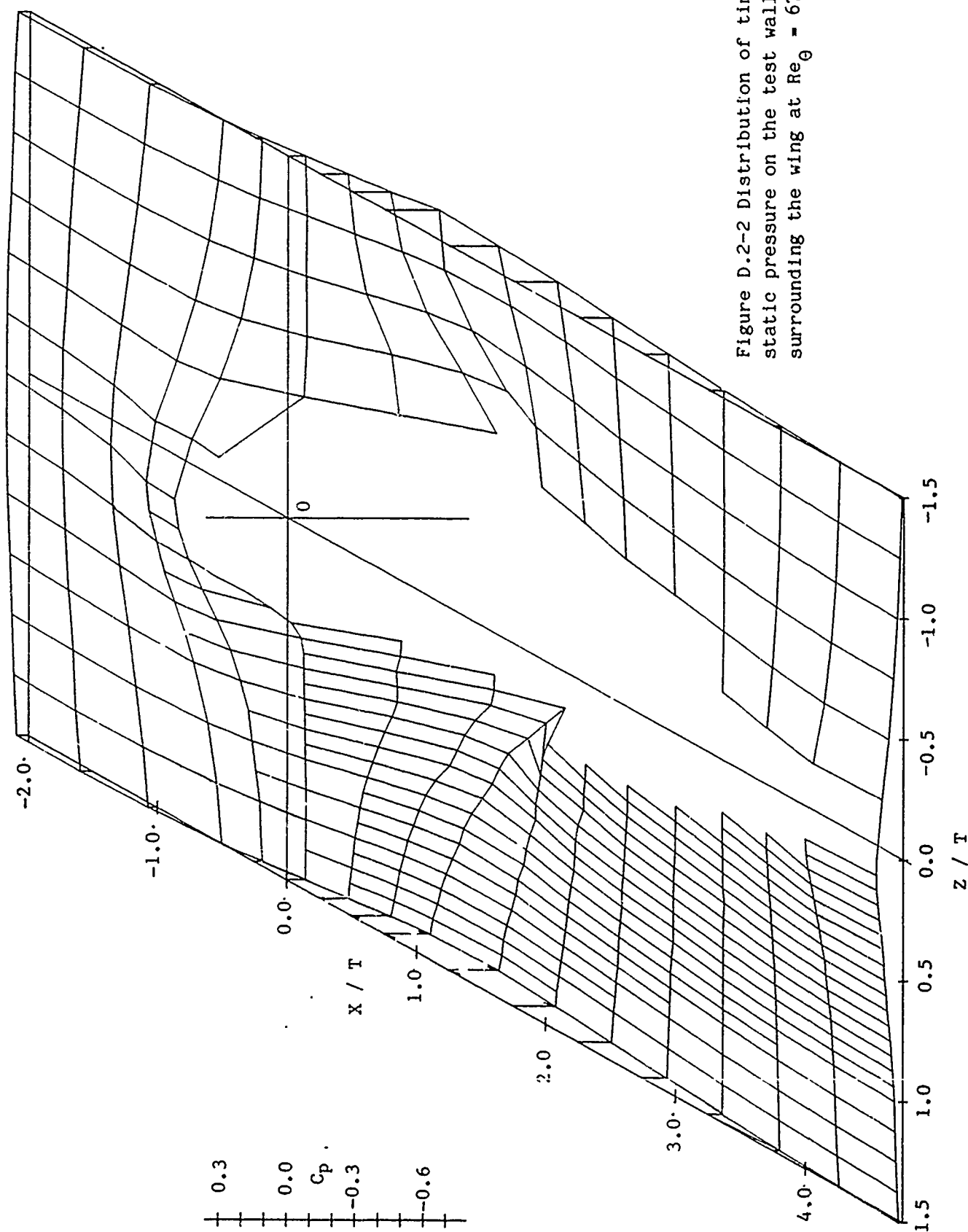


Figure D.2-2 Distribution of time-mean static pressure on the test wall surrounding the wing at $Re_\theta = 6766$.

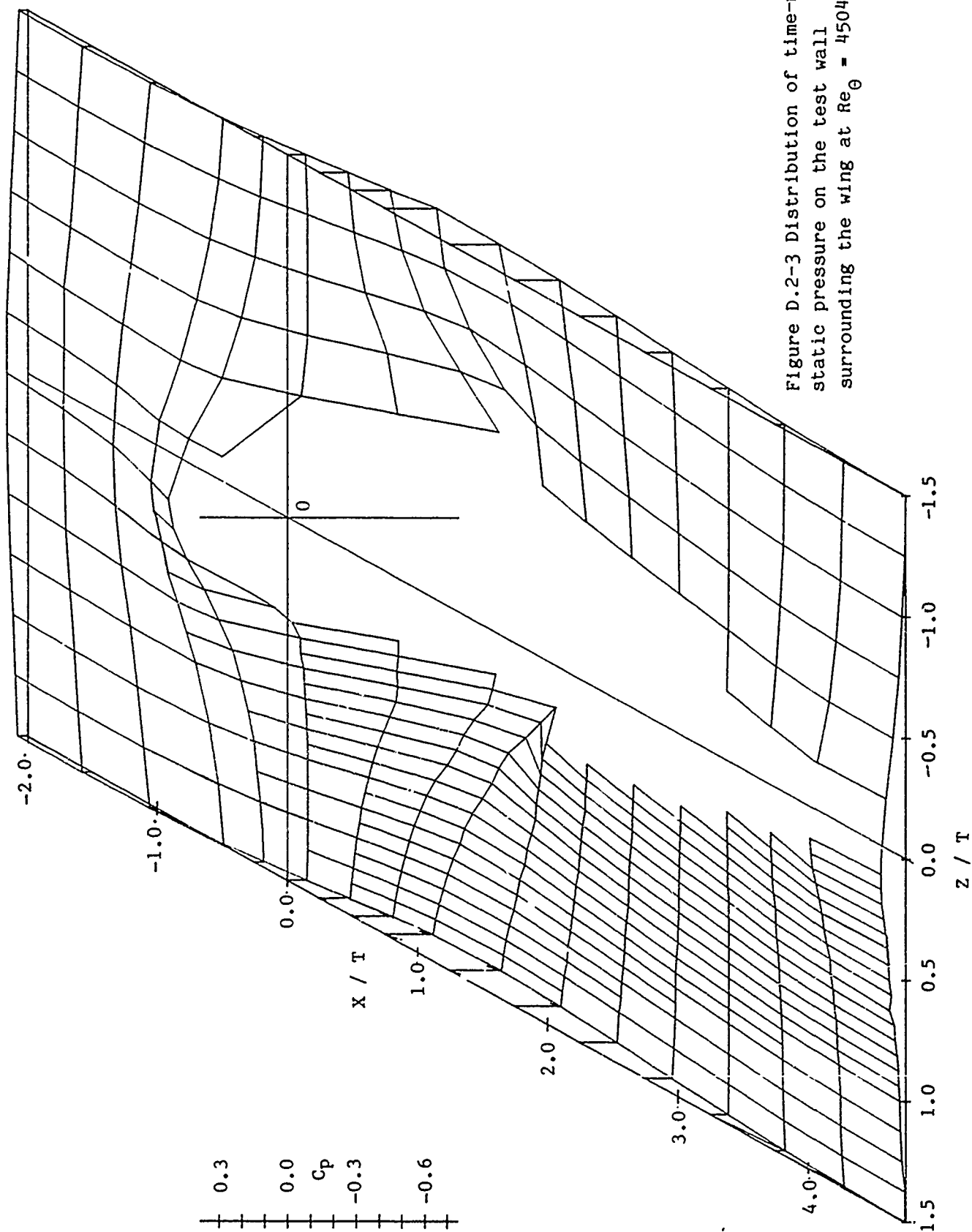


Figure D.2-3 Distribution of time-mean static pressure on the test wall surrounding the wing at $Re_\theta = 4504$.

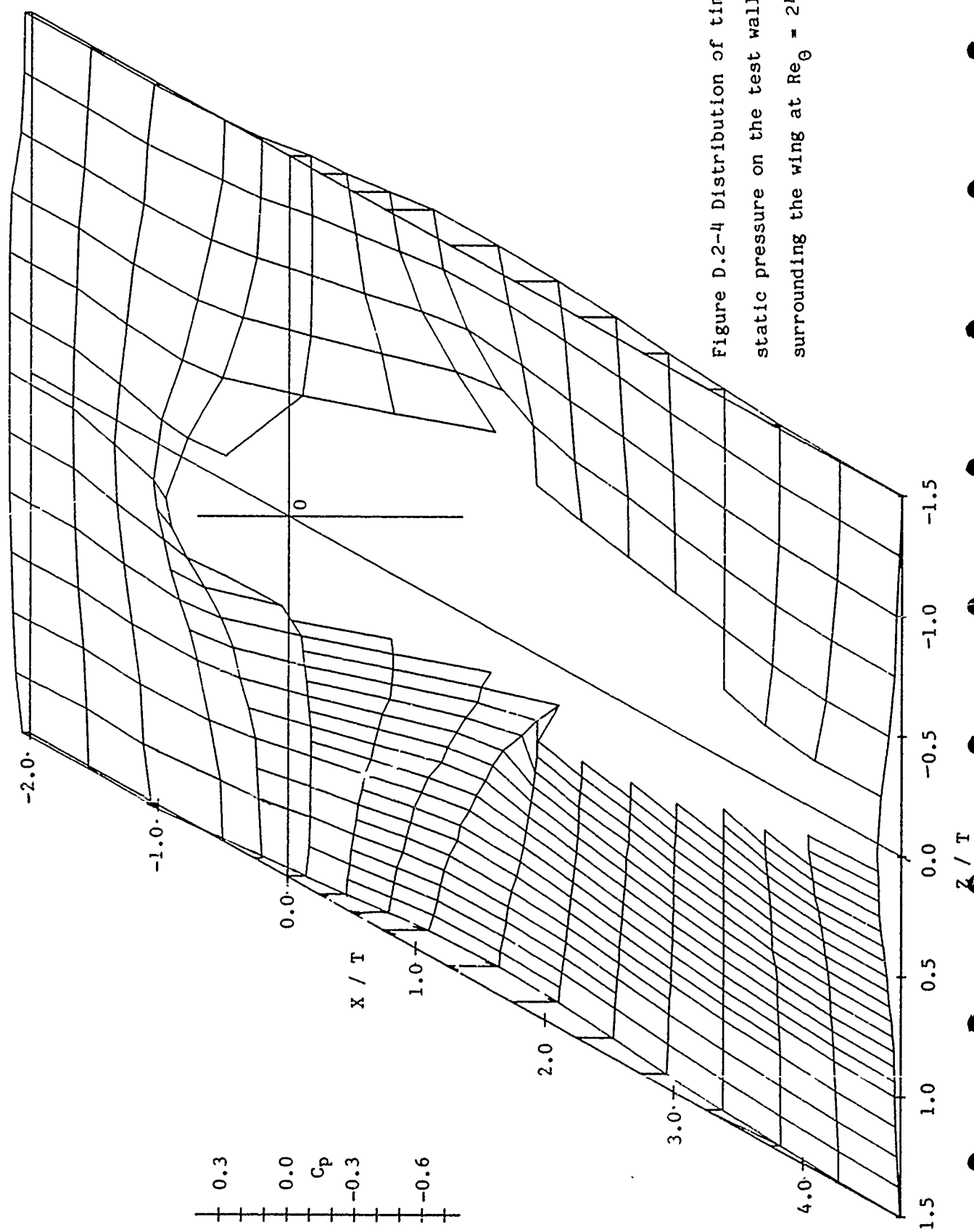


Figure D.2-4 Distribution of time-mean static pressure on the test wall surrounding the wing at $Re_\theta = 2420$.

Table D.2-1 Time-mean static pressures on the test wall surrounding the wing
at $Re_o = 6766$.

File E34270.RES

Time-mean static pressures on the test wall surrounding the wing

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.099746

viscosity (meters squared per second) = 1.675057E-05

Atmospheric pressure (Pascals) = 94100

Velocity of undisturbed free stream (U_{ref} , in m/s) = 27.619

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.091891E-03

Estimated momentum thickness Reynolds number = 6766.032

X/T	Y/T	Z/T	Cp				
-2.0000E+00	0.0000E+00	-1.5000E+00	5.3040E-02	-2.5000E-01	0.0000E+00	1.0000E+00	1.0352E-02
-2.0000E+00	0.0000E+00	-1.2500E+00	6.6110E-02	-2.5000E-01	0.0000E+00	1.1250E+00	-6.4660E-03
-2.0000E+00	0.0000E+00	-1.0000E+00	7.1944E-02	-2.5000E-01	0.0000E+00	1.2500E+00	-2.3278E-02
-2.0000E+00	0.0000E+00	-7.5000E-01	7.9863E-02	-2.5000E-01	0.0000E+00	1.3750E+00	-2.7969E-02
-2.0000E+00	0.0000E+00	-5.0000E-01	9.2036E-02	-2.5000E-01	0.0000E+00	1.5000E+00	-3.5145E-02
-2.0000E+00	0.0000E+00	-2.5000E-01	9.7295E-02	0.0000E+00	0.0000E+00	-1.5000E+00	-7.6237E-02
-2.0000E+00	0.0000E+00	0.0000E+00	9.8758E-02	0.0000E+00	0.0000E+00	-1.2500E+00	-8.4758E-02
-2.0000E+00	0.0000E+00	2.5000E-01	9.7049E-02	0.0000E+00	0.0000E+00	-1.0000E+00	-8.0052E-02
-2.0000E+00	0.0000E+00	5.0000E-01	9.2036E-02	0.0000E+00	0.0000E+00	-7.5000E-01	-8.5007E-02
-2.0000E+00	0.0000E+00	7.5000E-01	8.1330E-02	0.0000E+00	0.0000E+00	-5.0000E-01	-7.0731E-02
-2.0000E+00	0.0000E+00	1.0000E+00	7.2166E-02	0.0000E+00	0.0000E+00	-2.5000E-01	3.0315E-01
-2.0000E+00	0.0000E+00	1.2500E+00	6.2759E-02	0.0000E+00	0.0000E+00	2.5000E-01	3.0668E-01
-2.0000E+00	0.0000E+00	1.5000E+00	5.0705E-02	0.0000E+00	0.0000E+00	3.1250E-01	1.7469E-01
-1.5000E+00	0.0000E+00	-1.5000E+00	4.9317E-02	0.0000E+00	0.0000E+00	3.7500E-01	7.2029E-02
-1.5000E+00	0.0000E+00	-1.2500E+00	6.7486E-02	0.0000E+00	0.0000E+00	4.3750E-01	-1.9536E-02
-1.5000E+00	0.0000E+00	-1.0000E+00	9.0038E-02	0.0000E+00	0.0000E+00	5.0000E-01	-6.1902E-02
-1.5000E+00	0.0000E+00	-7.5000E-01	1.0751E-01	0.0000E+00	0.0000E+00	5.6250E-01	-7.2457E-02
-1.5000E+00	0.0000E+00	-5.0000E-01	1.1910E-01	0.0000E+00	0.0000E+00	6.2500E-01	-7.3544E-02
-1.5000E+00	0.0000E+00	-2.5000E-01	1.3757E-01	0.0000E+00	0.0000E+00	6.8750E-01	-7.4492E-02
-1.5000E+00	0.0000E+00	0.0000E+00	1.4040E-01	0.0000E+00	0.0000E+00	7.5000E-01	-7.6390E-02
-1.5000E+00	0.0000E+00	2.5000E-01	1.3393E-01	0.0000E+00	0.0000E+00	8.1250E-01	-7.8333E-02
-1.5000E+00	0.0000E+00	5.0000E-01	1.2366E-01	0.0000E+00	0.0000E+00	8.7500E-01	-7.8887E-02
-1.5000E+00	0.0000E+00	7.5000E-01	1.0869E-01	0.0000E+00	0.0000E+00	9.3750E-01	-7.9580E-02
-1.5000E+00	0.0000E+00	1.0000E+00	8.7211E-02	0.0000E+00	0.0000E+00	1.0000E+00	-8.0703E-02
-1.5000E+00	0.0000E+00	1.2500E+00	7.5922E-02	0.0000E+00	0.0000E+00	1.1250E+00	-8.4608E-02
-1.5000E+00	0.0000E+00	1.5000E+00	5.4995E-02	0.0000E+00	0.0000E+00	1.2500E+00	-8.4106E-02
-1.0000E+00	0.0000E+00	-1.5000E+00	4.1420E-02	0.0000E+00	0.0000E+00	1.3750E+00	-8.1595E-02
-1.0000E+00	0.0000E+00	-1.2500E+00	6.4897E-02	0.0000E+00	0.0000E+00	1.5000E+00	-7.9719E-02
-1.0000E+00	0.0000E+00	-1.0000E+00	9.4706E-02	2.5000E-01	0.0000E+00	-1.5000E+00	-1.2178E-01
-1.0000E+00	0.0000E+00	-7.5000E-01	1.3000E-01	2.5000E-01	0.0000E+00	-1.2500E+00	-1.5294E-01
-1.0000E+00	0.0000E+00	-5.0000E-01	1.6529E-01	2.5000E-01	0.0000E+00	-1.0000E+00	-2.0570E-01
-1.0000E+00	0.0000E+00	-2.5000E-01	1.9706E-01	2.5000E-01	0.0000E+00	-7.5000E-01	-3.1584E-01
-1.0000E+00	0.0000E+00	0.0000E+00	2.1118E-01	2.5000E-01	0.0000E+00	-5.0000E-01	-3.464E-01
-1.0000E+00	0.0000E+00	2.5000E-01	1.9941E-01	2.5000E-01	0.0000E+00	4.3750E-01	-3.5948E-01
-1.0000E+00	0.0000E+00	5.0000E-01	1.6864E-01	2.5000E-01	0.0000E+00	5.0000E-01	-3.5291E-01
-1.0000E+00	0.0000E+00	7.5000E-01	1.3018E-01	2.5000E-01	0.0000E+00	5.6250E-01	-3.3471E-01
-1.0000E+00	0.0000E+00	1.0000E+00	9.5972E-02	2.5000E-01	0.0000E+00	6.2500E-01	-3.4254E-01
-1.0000E+00	0.0000E+00	1.2500E+00	6.3314E-02	2.5000E-01	0.0000E+00	6.8750E-01	-3.4210E-01
-1.0000E+00	0.0000E+00	1.5000E+00	3.9528E-02	2.5000E-01	0.0000E+00	7.5000E-01	-3.1661E-01
-5.0000E-01	0.0000E+00	-1.5000E+00	1.7647E-03	2.5000E-01	0.0000E+00	8.1250E-01	-2.8396E-01
-5.0000E-01	0.0000E+00	-1.2500E+00	2.3529E-02	2.5000E-01	0.0000E+00	8.7500E-01	-2.5629E-01
-5.0000E-01	0.0000E+00	-1.0000E+00	6.4118E-02	2.5000E-01	0.0000E+00	9.3750E-01	-2.3267E-01
-5.0000E-01	0.0000E+00	-7.5000E-01	1.2353E-01	2.5000E-01	0.0000E+00	1.0000E+00	-2.0988E-01
-5.0000E-01	0.0000E+00	-5.0000E-01	2.0529E-01	2.5000E-01	0.0000E+00	1.0625E+00	-1.9200E-01
-5.0000E-01	0.0000E+00	-2.5000E-01	2.9971E-01	2.5000E-01	0.0000E+00	1.1250E+00	-1.7830E-01
-5.0000E-01	0.0000E+00	0.0000E+00	3.3905E-01	2.5000E-01	0.0000E+00	1.1875E+00	-1.6862E-01
-5.0000E-01	0.0000E+00	1.2500E-01	3.2308E-01	2.5000E-01	0.0000E+00	1.2500E+00	-1.5663E-01
-5.0000E-01	0.0000E+00	3.7500E-01	2.5773E-01	2.5000E-01	0.0000E+00	1.3125E+00	-1.4962E-01
-5.0000E-01	0.0000E+00	5.0000E-01	2.1080E-01	2.5000E-01	0.0000E+00	1.3750E+00	-1.4127E-01
-5.0000E-01	0.0000E+00	6.2500E-01	1.6450E-01	2.5000E-01	0.0000E+00	1.4375E+00	-1.3236E-01
-5.0000E-01	0.0000E+00	7.5000E-01	1.2557E-01	2.5000E-01	0.0000E+00	1.5000E+00	-1.2757E-01
-5.0000E-01	0.0000E+00	1.0000E+00	6.3194E-02	5.0000E-01	0.0000E+00	-1.5000E+00	-1.6647E-01
-5.0000E-01	0.0000E+00	1.2500E+00	2.3036E-02	5.0000E-01	0.0000E+00	-1.2500E+00	-2.1850E-01
-5.0000E-01	0.0000E+00	1.5000E+00	5.5083E-04	5.0000E-01	0.0000E+00	-1.0000E+00	-3.2567E-01
-2.5000E-01	0.0000E+00	-1.5000E+00	-2.8468E-02	5.0000E-01	0.0000E+00	-7.5000E-01	-4.8446E-01
-2.5000E-01	0.0000E+00	-1.2500E+00	-1.6156E-02	5.0000E-01	0.0000E+00	-5.0000E-01	-5.3524E-01
-2.5000E-01	0.0000E+00	-1.0000E+00	7.4317E-03	5.0000E-01	0.0000E+00	5.0000E-01	-6.2353E-01
-2.5000E-01	0.0000E+00	-7.5000E-01	6.4300E-02	5.0000E-01	0.0000E+00	5.6250E-01	-6.2280E-01
-2.5000E-01	0.0000E+00	-5.0000E-01	1.5490E-01	5.0000E-01	0.0000E+00	6.2500E-01	-6.0944E-01
-2.5000E-01	0.0000E+00	-2.5000E-01	2.7986E-01	5.0000E-01	0.0000E+00	6.8750E-01	-5.4173E-01
-2.5000E-01	0.0000E+00	0.0000E+00	3.5773E-01	5.0000E-01	0.0000E+00	7.5000E-01	-4.9472E-01
-2.5000E-01	0.0000E+00	1.2500E-01	3.3548E-01	5.0000E-01	0.0000E+00	8.1250E-01	-4.6177E-01
-2.5000E-01	0.0000E+00	2.5000E-01	2.9188E-01	5.0000E-01	0.0000E+00	8.7500E-01	-4.2816E-01
-2.5000E-01	0.0000E+00	3.7500E-01	2.3132E-01	5.0000E-01	0.0000E+00	9.3750E-01	-3.6691E-01
-2.5000E-01	0.0000E+00	5.0000E-01	1.6616E-01	5.0000E-01	0.0000E+00	1.0000E+00	-3.2333E-01
-2.5000E-01	0.0000E+00	6.2500E-01	1.0726E-01	5.0000E-01	0.0000E+00	1.0625E+00	-2.9308E-01
-2.5000E-01	0.0000E+00	7.5000E-01	6.2833E-02	5.0000E-01	0.0000E+00	1.1250E+00	-2.6873E-01
-2.5000E-01	0.0000E+00	8.7500E-01	2.6527E-02	5.0000E-01	0.0000E+00	1.1875E+00	-2.4356E-01

5.0000E-01	0.0000E+00	1.2500E+00	-2.2716E-01	2.2500E+00	0.0000E+00	7.5000E-01	-1.9877E-01
5.0000E-01	0.0000E+00	1.3125E+00	-2.1077E-01	2.2500E+00	0.0000E+00	8.1250E-01	-1.9367E-01
5.0000E-01	0.0000E+00	1.3750E+00	-1.9766E-01	2.2500E+00	0.0000E+00	8.7500E-01	-1.8894E-01
5.0000E-01	0.0000E+00	1.4375E+00	-1.8479E-01	2.2500E+00	0.0000E+00	9.3750E-01	-1.8855E-01
5.0000E-01	0.0000E+00	1.5000E+00	-1.7126E-01	2.2500E+00	0.0000E+00	1.0000E+00	-1.8277E-01
7.5000E-01	0.0000E+00	-1.5000E+00	-2.3883E-01	2.2500E+00	0.0000E+00	1.0625E+00	-1.7681E-01
7.5000E-01	0.0000E+00	-1.2500E+00	-2.6208E-01	2.2500E+00	0.0000E+00	1.1250E+00	-1.7383E-01
7.5000E-01	0.0000E+00	-1.0000E+00	-3.8406E-01	2.2500E+00	0.0000E+00	1.1875E+00	-1.7204E-01
7.5000E-01	0.0000E+00	-7.5000E-01	-5.3650E-01	2.2500E+00	0.0000E+00	1.2500E+00	-1.6554E-01
7.5000E-01	0.0000E+00	5.6250E-01	-7.9293E-01	2.2500E+00	0.0000E+00	1.3125E+00	-1.6145E-01
7.5000E-01	0.0000E+00	6.2500E-01	-7.1004E-01	2.2500E+00	0.0000E+00	1.3750E+00	-1.5375E-01
7.5000E-01	0.0000E+00	6.8750E-01	-6.2959E-01	2.2500E+00	0.0000E+00	1.5000E+00	-1.4516E-01
7.5000E-01	0.0000E+00	7.5000E-01	-5.4439E-01	2.7500E+00	0.0000E+00	-1.5000E+00	-1.0458E-01
7.5000E-01	0.0000E+00	8.1250E-01	-5.0432E-01	2.7500E+00	0.0000E+00	-1.2500E+00	-1.1287E-01
7.5000E-01	0.0000E+00	8.7500E-01	-4.7409E-01	2.7500E+00	0.0000E+00	-1.0000E+00	-1.2206E-01
7.5000E-01	0.0000E+00	9.3750E-01	-4.3150E-01	2.7500E+00	0.0000E+00	-7.5000E-01	-1.2688E-01
7.5000E-01	0.0000E+00	1.0000E+00	-3.8478E-01	2.7500E+00	0.0000E+00	-5.0000E-01	-1.3479E-01
7.5000E-01	0.0000E+00	1.0625E+00	-3.4875E-01	2.7500E+00	0.0000E+00	3.7500E-01	-1.3986E-01
7.5000E-01	0.0000E+00	1.1250E+00	-3.3029E-01	2.7500E+00	0.0000E+00	4.3750E-01	-1.4002E-01
7.5000E-01	0.0000E+00	1.1875E+00	-2.9832E-01	2.7500E+00	0.0000E+00	5.0000E-01	-1.3569E-01
7.5000E-01	0.0000E+00	1.2500E+00	-2.7158E-01	2.7500E+00	0.0000E+00	5.6250E-01	-1.3659E-01
7.5000E-01	0.0000E+00	1.3125E+00	-2.4979E-01	2.7500E+00	0.0000E+00	6.2500E-01	-1.3181E-01
7.5000E-01	0.0000E+00	1.3750E+00	-2.3499E-01	2.7500E+00	0.0000E+00	6.8750E-01	-1.2884E-01
7.5000E-01	0.0000E+00	1.4375E+00	-2.1376E-01	2.7500E+00	0.0000E+00	7.5000E-01	-1.2870E-01
7.5000E-01	0.0000E+00	1.5000E+00	-2.0230E-01	2.7500E+00	0.0000E+00	8.1250E-01	-1.2841E-01
1.2500E+00	0.0000E+00	-1.5000E+00	-2.1325E-01	2.7500E+00	0.0000E+00	8.7500E-01	-1.2942E-01
1.2500E+00	0.0000E+00	-1.2500E+00	-2.6846E-01	2.7500E+00	0.0000E+00	9.3750E-01	-1.3031E-01
1.2500E+00	0.0000E+00	-1.0000E+00	-3.3504E-01	2.7500E+00	0.0000E+00	1.0000E+00	-1.2160E-01
1.2500E+00	0.0000E+00	-7.5000E-01	-3.7908E-01	2.7500E+00	0.0000E+00	1.0625E+00	-1.1662E-01
1.2500E+00	0.0000E+00	-5.0000E-01	-4.0575E-01	2.7500E+00	0.0000E+00	1.1250E+00	-1.1694E-01
1.2500E+00	0.0000E+00	5.6250E-01	-4.3261E-01	2.7500E+00	0.0000E+00	1.1875E+00	-1.1360E-01
1.2500E+00	0.0000E+00	6.2500E-01	-4.0891E-01	2.7500E+00	0.0000E+00	1.2500E+00	-1.1123E-01
1.2500E+00	0.0000E+00	6.8750E-01	-4.0130E-01	2.7500E+00	0.0000E+00	1.3750E+00	-1.0695E-01
1.2500E+00	0.0000E+00	7.5000E-01	-3.9053E-01	2.7500E+00	0.0000E+00	1.5000E+00	-1.0280E-01
1.2500E+00	0.0000E+00	8.1250E-01	-3.7927E-01	3.2500E+00	0.0000E+00	-1.5000E+00	-6.3703E-02
1.2500E+00	0.0000E+00	8.7500E-01	-3.7990E-01	3.2500E+00	0.0000E+00	-1.2500E+00	-6.4296E-02
1.2500E+00	0.0000E+00	9.3750E-01	-3.5587E-01	3.2500E+00	0.0000E+00	-1.0000E+00	-6.6665E-02
1.2500E+00	0.0000E+00	1.0000E+00	-3.3779E-01	3.2500E+00	0.0000E+00	-7.5000E-01	-6.4888E-02
1.2500E+00	0.0000E+00	1.0625E+00	-3.2812E-01	3.2500E+00	0.0000E+00	-5.0000E-01	-6.3279E-02
1.2500E+00	0.0000E+00	1.1250E+00	-3.0157E-01	3.2500E+00	0.0000E+00	-2.5000E-01	-5.7916E-02
1.2500E+00	0.0000E+00	1.1875E+00	-2.9265E-01	3.2500E+00	0.0000E+00	2.5000E-01	-5.9330E-02
1.2500E+00	0.0000E+00	1.2500E+00	-2.7481E-01	3.2500E+00	0.0000E+00	3.1250E-01	-5.7881E-02
1.2500E+00	0.0000E+00	1.3125E+00	-2.5411E-01	3.2500E+00	0.0000E+00	3.7500E-01	-5.9556E-02
1.2500E+00	0.0000E+00	1.3750E+00	-2.3983E-01	3.2500E+00	0.0000E+00	4.3750E-01	-6.2518E-02
1.2500E+00	0.0000E+00	1.4375E+00	-2.3237E-01	3.2500E+00	0.0000E+00	5.0000E-01	-6.2386E-02
1.2500E+00	0.0000E+00	1.5000E+00	-2.1972E-01	3.2500E+00	0.0000E+00	5.6250E-01	-6.2981E-02
1.7500E+00	0.0000E+00	-1.5000E+00	-1.8775E-01	3.2500E+00	0.0000E+00	6.2500E-01	-6.9813E-02
1.7500E+00	0.0000E+00	-1.2500E+00	-2.2361E-01	3.2500E+00	0.0000E+00	6.8750E-01	-6.4112E-02
1.7500E+00	0.0000E+00	-1.0000E+00	-2.6100E-01	3.2500E+00	0.0000E+00	7.5000E-01	-6.3577E-02
1.7500E+00	0.0000E+00	-7.5000E-01	-2.8445E-01	3.2500E+00	0.0000E+00	8.1250E-01	-6.3556E-02
1.7500E+00	0.0000E+00	-5.0000E-01	-3.0965E-01	3.2500E+00	0.0000E+00	8.7500E-01	-6.3026E-02
1.7500E+00	0.0000E+00	5.0000E-01	-3.1517E-01	3.2500E+00	0.0000E+00	9.3750E-01	-6.4995E-02
1.7500E+00	0.0000E+00	5.6250E-01	-3.1150E-01	3.2500E+00	0.0000E+00	1.0000E+00	-6.3216E-02
1.7500E+00	0.0000E+00	6.2500E-01	-3.0387E-01	3.2500E+00	0.0000E+00	1.0625E+00	-6.2814E-02
1.7500E+00	0.0000E+00	6.8750E-01	-3.0506E-01	3.2500E+00	0.0000E+00	1.1250E+00	-6.4888E-02
1.7500E+00	0.0000E+00	7.5000E-01	-2.7995E-01	3.2500E+00	0.0000E+00	1.2500E+00	-6.2814E-02
1.7500E+00	0.0000E+00	8.1250E-01	-2.6873E-01	3.2500E+00	0.0000E+00	1.3750E+00	-6.2814E-02
1.7500E+00	0.0000E+00	8.7500E-01	-2.6518E-01	3.2500E+00	0.0000E+00	1.5000E+00	-6.1926E-02
1.7500E+00	0.0000E+00	9.3750E-01	-2.6171E-01	3.7500E+00	0.0000E+00	-1.5000E+00	-2.9343E-02
1.7500E+00	0.0000E+00	1.0000E+00	-2.4838E-01	3.7500E+00	0.0000E+00	-1.2500E+00	-2.6033E-02
1.7500E+00	0.0000E+00	1.0625E+00	-2.3952E-01	3.7500E+00	0.0000E+00	-1.0000E+00	-2.0073E-02
1.7500E+00	0.0000E+00	1.1250E+00	-2.3283E-01	3.7500E+00	0.0000E+00	-7.5000E-01	-8.1543E-03
1.7500E+00	0.0000E+00	1.1875E+00	-2.2448E-01	3.7500E+00	0.0000E+00	-5.0000E-01	9.4721E-03
1.7500E+00	0.0000E+00	1.2500E+00	-2.1655E-01	3.7500E+00	0.0000E+00	-2.5000E-01	3.1774E-02
1.7500E+00	0.0000E+00	1.3125E+00	-2.0609E-01	3.7500E+00	0.0000E+00	1.8750E-01	3.4102E-02
1.7500E+00	0.0000E+00	1.3750E+00	-1.9840E-01	3.7500E+00	0.0000E+00	2.5000E-01	3.2219E-02
1.7500E+00	0.0000E+00	1.4375E+00	-1.8816E-01	3.7500E+00	0.0000E+00	3.1250E-01	2.6292E-02
1.7500E+00	0.0000E+00	1.5000E+00	-1.8456E-01	3.7500E+00	0.0000E+00	3.7500E-01	2.3975E-02
2.2500E+00	0.0000E+00	-1.5000E+00	-1.4551E-01	3.7500E+00	0.0000E+00	4.3750E-01	1.8643E-02
2.2500E+00	0.0000E+00	-1.2500E+00	-1.6250E-01	3.7500E+00	0.0000E+00	5.0000E-01	1.2719E-02
2.2500E+00	0.0000E+00	-1.0000E+00	-1.7860E-01	3.7500E+00	0.0000E+00	5.6250E-01	9.7567E-03
2.2500E+00	0.0000E+00	-7.5000E-01	-1.9528E-01	3.7500E+00	0.0000E+00	6.2500E-01	3.8325E-03
2.2500E+00	0.0000E+00	-5.0000E-01	-2.0565E-01	3.7500E+00	0.0000E+00	6.8750E-01	7.3480E-04
2.2500E+00	0.0000E+00	4.3750E-01	-2.1477E-01	3.7500E+00	0.0000E+00	7.5000E-01	-5.9463E-03
2.2500E+00	0.0000E+00	5.0000E-01	-2.1240E-01	3.7500E+00	0.0000E+00	8.1250E-01	-7.0516E-03
2.2500E+00	0.0000E+00	5.6250E-01	-2.1033E-01	3.7500E+00	0.0000E+00	8.7500E-01	-1.1753E-02
2.2500E+00	0.0000E+00	6.2500E-01	-2.0588E-01	3.7500E+00	0.0000E+00	9.3750E-01	-1.2740E-02
2.2500E+00	0.0000E+00	6.8750E-01	-2.0174E-01	3.7500E+00	0.0000E+00	1.0000E+00	-1.5866E-02

3.7500E+00	0.0000E+00	1.0625E+00	-1.7629E-02
3.7500E+00	0.0000E+00	1.1250E+00	-1.9392E-02
3.7500E+00	0.0000E+00	1.2500E+00	-2.3212E-02
3.7500E+00	0.0000E+00	1.3750E+00	-2.7031E-02
3.7500E+00	0.0000E+00	1.5000E+00	-2.9969E-02
4.2500E+00	0.0000E+00	-1.5000E+00	-3.8582E-03
4.2500E+00	0.0000E+00	-1.2500E+00	5.9357E-03
4.2500E+00	0.0000E+00	-1.0000E+00	1.5378E-02
4.2500E+00	0.0000E+00	-7.5000E-01	3.5161E-02
4.2500E+00	0.0000E+00	-5.0000E-01	6.5594E-02
4.2500E+00	0.0000E+00	-2.5000E-01	1.1375E-01
4.2500E+00	0.0000E+00	6.2500E-02	1.4808E-01
4.2500E+00	0.0000E+00	1.2500E-01	1.4263E-01
4.2500E+00	0.0000E+00	1.8750E-01	1.3261E-01
4.2500E+00	0.0000E+00	2.5000E-01	1.2054E-01
4.2500E+00	0.0000E+00	3.1250E-01	1.0668E-01
4.2500E+00	0.0000E+00	3.7500E-01	9.4299E-02
4.2500E+00	0.0000E+00	4.3750E-01	8.2512E-02
4.2500E+00	0.0000E+00	5.0000E-01	7.2450E-02
4.2500E+00	0.0000E+00	5.6250E-01	5.8867E-02
4.2500E+00	0.0000E+00	6.2500E-01	5.4124E-02
4.2500E+00	0.0000E+00	6.8750E-01	4.5889E-02
4.2500E+00	0.0000E+00	7.5000E-01	3.7720E-02
4.2500E+00	0.0000E+00	8.1250E-01	3.0647E-02
4.2500E+00	0.0000E+00	8.7500E-01	2.6490E-02
4.2500E+00	0.0000E+00	9.3750E-01	2.2945E-02
4.2500E+00	0.0000E+00	1.0000E+00	1.7976E-02
4.2500E+00	0.0000E+00	1.1250E+00	1.2082E-02
4.2500E+00	0.0000E+00	1.2500E+00	7.9565E-03
4.2500E+00	0.0000E+00	1.3750E+00	1.7650E-03
4.2500E+00	0.0000E+00	1.5000E+00	-5.8937E-03
4.7500E+00	0.0000E+00	-1.5000E+00	9.4243E-03
4.7500E+00	0.0000E+00	-1.2500E+00	1.7944E-02
4.7500E+00	0.0000E+00	-1.0000E+00	2.9347E-02
4.7500E+00	0.0000E+00	-7.5000E-01	4.5408E-02
4.7500E+00	0.0000E+00	-5.0000E-01	6.6579E-02
4.7500E+00	0.0000E+00	-2.5000E-01	9.6330E-02
4.7500E+00	0.0000E+00	0.0000E+00	1.2041E-01
4.7500E+00	0.0000E+00	6.2500E-02	1.2213E-01
4.7500E+00	0.0000E+00	1.2500E-01	1.1852E-01
4.7500E+00	0.0000E+00	1.8750E-01	1.1261E-01
4.7500E+00	0.0000E+00	2.5000E-01	1.0637E-01
4.7500E+00	0.0000E+00	3.1250E-01	9.6027E-02
4.7500E+00	0.0000E+00	3.7500E-01	
4.7500E+00	0.0000E+00	4.3750E-01	8.8641E-02
4.7500E+00	0.0000E+00	5.0000E-01	8.1182E-02
4.7500E+00	0.0000E+00	5.6250E-01	7.3802E-02
4.7500E+00	0.0000E+00	6.2500E-01	6.9628E-02
4.7500E+00	0.0000E+00	6.8750E-01	6.1439E-02
4.7500E+00	0.0000E+00	7.5000E-01	5.4908E-02
4.7500E+00	0.0000E+00	8.1250E-01	4.8752E-02
4.7500E+00	0.0000E+00	8.7500E-01	4.3729E-02
4.7500E+00	0.0000E+00	9.3750E-01	3.9216E-02
4.7500E+00	0.0000E+00	1.0000E+00	3.5383E-02
4.7500E+00	0.0000E+00	1.1250E+00	3.2502E-02
4.7500E+00	0.0000E+00	1.2500E+00	2.7733E-02
4.7500E+00	0.0000E+00	1.3750E+00	2.2999E-02
4.7500E+00	0.0000E+00	1.5000E+00	1.7102E-02

Table D.2-2 Time-mean static pressures on the test wall surrounding the wing
at $Re_{\theta} = 4504$.

File E35240.RES

Time-mean static pressures on the test-wall surrounding the wing

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.10635

viscosity (meters squared per second) = 1.66363E-05

Atmospheric pressure (Pascals) = 94665

Velocity of undisturbed free stream (Uref, in m/s) = 16.464

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.537938E-03

Estimated momentum thickness Reynolds number = 4503.677

X/T	Y/T	Z/T	Cp				
-2.0000E+00	0.0000E+00	-1.5000E+00	4.1274E-02	-2.5000E-01	0.0000E+00	1.0000E+00	1.6779E-03
-2.0000E+00	0.0000E+00	-1.2500E+00	5.1931E-02	-2.5000E-01	0.0000E+00	1.1250E+00	-1.1745E-02
-2.0000E+00	0.0000E+00	-1.0000E+00	6.1096E-02	-2.5000E-01	0.0000E+00	1.2500E+00	-2.5168E-02
-2.0000E+00	0.0000E+00	-7.5000E-01	7.5480E-02	-2.5000E-01	0.0000E+00	1.3750E+00	-3.5236E-02
-2.0000E+00	0.0000E+00	-5.0000E-01	8.0616E-02	-2.5000E-01	0.0000E+00	1.5000E+00	-4.0269E-02
-2.0000E+00	0.0000E+00	-2.5000E-01	9.1720E-02	0.0000E+00	0.0000E+00	-1.5000E+00	-8.0539E-02
-2.0000E+00	0.0000E+00	0.0000E+00	9.1720E-02	0.0000E+00	0.0000E+00	-1.2500E+00	-9.0606E-02
-2.0000E+00	0.0000E+00	2.5000E-01	9.0191E-02	0.0000E+00	0.0000E+00	-1.0000E+00	-8.8928E-02
-2.0000E+00	0.0000E+00	5.0000E-01	8.3797E-02	0.0000E+00	0.0000E+00	-7.5000E-01	-8.9078E-02
-2.0000E+00	0.0000E+00	7.5000E-01	7.6053E-02	0.0000E+00	0.0000E+00	-5.0000E-01	-6.0506E-02
-2.0000E+00	0.0000E+00	1.0000E+00	6.3387E-02	0.0000E+00	0.0000E+00	-2.5000E-01	2.8572E-01
-2.0000E+00	0.0000E+00	1.2500E+00	5.3503E-02	0.0000E+00	0.0000E+00	2.5000E-01	2.9027E-01
-2.0000E+00	0.0000E+00	1.5000E+00	4.4331E-02	0.0000E+00	0.0000E+00	3.1250E-01	1.5940E-01
-1.5000E+00	0.0000E+00	-1.5000E+00	4.4294E-02	0.0000E+00	0.0000E+00	3.7500E-01	5.2102E-02
-1.5000E+00	0.0000E+00	-1.2500E+00	6.1045E-02	0.0000E+00	0.0000E+00	4.3750E-01	-2.3530E-02
-1.5000E+00	0.0000E+00	-1.0000E+00	7.6686E-02	0.0000E+00	0.0000E+00	5.0000E-01	-5.7144E-02
-1.5000E+00	0.0000E+00	-7.5000E-01	9.5827E-02	0.0000E+00	0.0000E+00	5.6250E-01	-5.8726E-02
-1.5000E+00	0.0000E+00	-5.0000E-01	1.2583E-01	0.0000E+00	0.0000E+00	6.2500E-01	-7.2149E-02
-1.5000E+00	0.0000E+00	-2.5000E-01	1.2372E-01	0.0000E+00	0.0000E+00	6.8750E-01	-7.5505E-02
-1.5000E+00	0.0000E+00	0.0000E+00	1.2830E-01	0.0000E+00	0.0000E+00	7.5000E-01	-7.8861E-02
-1.5000E+00	0.0000E+00	2.5000E-01	1.2219E-01	0.0000E+00	0.0000E+00	8.1250E-01	-8.3894E-02
-1.5000E+00	0.0000E+00	5.0000E-01	1.1608E-01	0.0000E+00	0.0000E+00	8.7500E-01	-8.5716E-02
-1.5000E+00	0.0000E+00	7.5000E-01	9.7348E-02	0.0000E+00	0.0000E+00	9.3750E-01	-8.9078E-02
-1.5000E+00	0.0000E+00	1.0000E+00	7.6560E-02	0.0000E+00	0.0000E+00	1.0000E+00	-8.9078E-02
-1.5000E+00	0.0000E+00	1.2500E+00	6.0742E-02	0.0000E+00	0.0000E+00	1.1250E+00	-9.0758E-02
-1.5000E+00	0.0000E+00	1.5000E+00	4.3748E-02	0.0000E+00	0.0000E+00	1.2500E+00	-9.0758E-02
-1.0000E+00	0.0000E+00	-1.5000E+00	3.0202E-02	0.0000E+00	0.0000E+00	1.3750E+00	-8.9767E-02
-1.0000E+00	0.0000E+00	-1.2500E+00	5.6686E-02	0.0000E+00	0.0000E+00	1.5000E+00	-8.2239E-02
-1.0000E+00	0.0000E+00	-1.0000E+00	8.2913E-02	2.5000E-01	0.0000E+00	-1.5000E+00	-1.2459E-01
-1.0000E+00	0.0000E+00	-7.5000E-01	1.1715E-01	2.5000E-01	0.0000E+00	-1.2500E+00	-1.5170E-01
-1.0000E+00	0.0000E+00	-5.0000E-01	1.5346E-01	2.5000E-01	0.0000E+00	-1.0000E+00	-2.0260E-01
-1.0000E+00	0.0000E+00	-2.5000E-01	1.7953E-01	2.5000E-01	0.0000E+00	-7.5000E-01	-2.9737E-01
-1.0000E+00	0.0000E+00	0.0000E+00	1.9463E-01	2.5000E-01	0.0000E+00	-5.0000E-01	-3.4376E-01
-1.0000E+00	0.0000E+00	2.5000E-01	1.8351E-01	2.5000E-01	0.0000E+00	4.3750E-01	-3.4483E-01
-1.0000E+00	0.0000E+00	5.0000E-01	1.5737E-01	2.5000E-01	0.0000E+00	5.0000E-01	-3.4475E-01
-1.0000E+00	0.0000E+00	7.5000E-01	1.1845E-01	2.5000E-01	0.0000E+00	5.6250E-01	-3.3602E-01
-1.0000E+00	0.0000E+00	1.0000E+00	8.6297E-02	2.5000E-01	0.0000E+00	6.2500E-01	-3.4198E-01
-1.0000E+00	0.0000E+00	1.2500E+00	5.8726E-02	2.5000E-01	0.0000E+00	6.8750E-01	-3.3221E-01
-1.0000E+00	0.0000E+00	1.5000E+00	3.1041E-02	2.5000E-01	0.0000E+00	7.5000E-01	-3.0491E-01
-5.0000E-01	0.0000E+00	-1.5000E+00	-5.0421E-03	2.5000E-01	0.0000E+00	8.1250E-01	-2.7704E-01
-5.0000E-01	0.0000E+00	-1.2500E+00	1.6807E-02	2.5000E-01	0.0000E+00	8.7500E-01	-2.4959E-01
-5.0000E-01	0.0000E+00	-1.0000E+00	5.5839E-02	2.5000E-01	0.0000E+00	9.3750E-01	-2.3027E-01
-5.0000E-01	0.0000E+00	-7.5000E-01	1.1168E-01	2.5000E-01	0.0000E+00	1.0000E+00	-2.1311E-01
-5.0000E-01	0.0000E+00	-5.0000E-01	1.8488E-01	2.5000E-01	0.0000E+00	1.0625E+00	-1.9672E-01
-5.0000E-01	0.0000E+00	-2.5000E-01	2.7732E-01	2.5000E-01	0.0000E+00	1.1250E+00	-1.8136E-01
-5.0000E-01	0.0000E+00	0.0000E+00	3.1429E-01	2.5000E-01	0.0000E+00	1.1875E+00	-1.7319E-01
-5.0000E-01	0.0000E+00	1.2500E-01	2.9917E-01	2.5000E-01	0.0000E+00	1.2500E+00	-1.6122E-01
-5.0000E-01	0.0000E+00	2.5000E-01		2.5000E-01	0.0000E+00	1.3125E+00	-1.5220E-01
-5.0000E-01	0.0000E+00	3.7500E-01	2.4197E-01	2.5000E-01	0.0000E+00	1.3750E+00	-1.4426E-01
-5.0000E-01	0.0000E+00	5.0000E-01	1.9628E-01	2.5000E-01	0.0000E+00	1.4375E+00	-1.3629E-01
-5.0000E-01	0.0000E+00	6.2500E-01	1.5567E-01	2.5000E-01	0.0000E+00	1.5000E+00	-1.3136E-01
-5.0000E-01	0.0000E+00	7.5000E-01	1.1429E-01	5.0000E-01	0.0000E+00	-1.5000E+00	-1.6857E-01
-5.0000E-01	0.0000E+00	1.0000E+00	5.7048E-02	5.0000E-01	0.0000E+00	-1.2500E+00	-2.2021E-01
-5.0000E-01	0.0000E+00	1.2500E+00	1.6779E-02	5.0000E-01	0.0000E+00	-1.0000E+00	-3.1593E-01
-5.0000E-01	0.0000E+00	1.5000E+00	-6.7115E-03	5.0000E-01	0.0000E+00	-7.5000E-01	-4.7552E-01
-2.5000E-01	0.0000E+00	-1.5000E+00	-3.7038E-02	5.0000E-01	0.0000E+00	-5.0000E-01	-6.4382E-01
-2.5000E-01	0.0000E+00	-1.2500E+00	-2.3570E-02	5.0000E-01	0.0000E+00	5.0000E-01	-6.2518E-01
-2.5000E-01	0.0000E+00	-1.0000E+00	-1.6921E-03	5.0000E-01	0.0000E+00	5.6250E-01	-6.1146E-01
-2.5000E-01	0.0000E+00	-7.5000E-01	5.8726E-02	5.0000E-01	0.0000E+00	6.2500E-01	-5.9179E-01
-2.5000E-01	0.0000E+00	-5.0000E-01	1.4430E-01	5.0000E-01	0.0000E+00	6.8750E-01	-5.3202E-01
-2.5000E-01	0.0000E+00	-2.5000E-01	2.9027E-01	5.0000E-01	0.0000E+00	7.5000E-01	-4.8607E-01
-2.5000E-01	0.0000E+00	0.0000E+00	3.8256E-01	5.0000E-01	0.0000E+00	8.1250E-01	-4.5415E-01
-2.5000E-01	0.0000E+00	1.2500E-01	3.5571E-01	5.0000E-01	0.0000E+00	8.7500E-01	-4.1432E-01
-2.5000E-01	0.0000E+00	2.5000E-01	2.9581E-01	5.0000E-01	0.0000E+00	9.3750E-01	-3.6152E-01
-2.5000E-01	0.0000E+00	3.7500E-01	2.2017E-01	5.0000E-01	0.0000E+00	1.0000E+00	-3.2354E-01
-2.5000E-01	0.0000E+00	5.0000E-01	1.5772E-01	5.0000E-01	0.0000E+00	1.0625E+00	-2.9524E-01
-2.5000E-01	0.0000E+00	6.2500E-01	9.5639E-02	5.0000E-01	0.0000E+00	1.1250E+00	-2.6885E-01
-2.5000E-01	0.0000E+00	7.5000E-01	5.8726E-02	5.0000E-01	0.0000E+00	1.1875E+00	-2.4754E-01
-2.5000E-01	0.0000E+00	8.7500E-01	2.6846E-02				

5.0000E-01	0.0000E+00	1.2500E+00	-2.2989E-01	2.2500E+00	0.0000E+00	7.5000E-01	-2.1345E-01
5.0000E-01	0.0000E+00	1.3125E+00	-2.1346E-01	2.2500E+00	0.0000E+00	9.1250E-01	-2.1024E-01
5.0000E-01	0.0000E+00	1.3750E+00	-1.9836E-01	2.2500E+00	0.0000E+00	8.7500E-01	-2.0864E-01
5.0000E-01	0.0000E+00	1.4375E+00	-1.8626E-01	2.2500E+00	0.0000E+00	9.3750E-01	-2.0772E-01
5.0000E-01	0.0000E+00	1.5000E+00	-1.7751E-01	2.2500E+00	0.0000E+00	1.0000E+00	-1.9967E-01
7.5000E-01	0.0000E+00	-1.5000E+00	-2.2962E-01	2.2500E+00	0.0000E+00	1.0625E+00	-1.9355E-01
7.5000E-01	0.0000E+00	-1.2500E+00	-2.6382E-01	2.2500E+00	0.0000E+00	1.1250E+00	-1.9194E-01
7.5000E-01	0.0000E+00	-1.0000E+00	-3.7376E-01	2.2500E+00	0.0000E+00	1.1875E+00	-1.8710E-01
7.5000E-01	0.0000E+00	-7.5000E-01	-5.2611E-01	2.2500E+00	0.0000E+00	1.2500E+00	-1.7903E-01
7.5000E-01	0.0000E+00	5.6250E-01	-7.4708E-01	2.2500E+00	0.0000E+00	1.3125E+00	-1.7742E-01
7.5000E-01	0.0000E+00	6.2500E-01	-6.8121E-01	2.2500E+00	0.0000E+00	1.3750E+00	-1.6760E-01
7.5000E-01	0.0000E+00	6.8750E-01	-6.1412E-01	2.2500E+00	0.0000E+00	1.5000E+00	-1.6076E-01
7.5000E-01	0.0000E+00	7.5000E-01	-5.4023E-01	2.7500E+00	0.0000E+00	-1.5000E+00	-1.1735E-01
7.5000E-01	0.0000E+00	8.1250E-01	-4.9835E-01	2.7500E+00	0.0000E+00	-1.2500E+00	-1.2839E-01
7.5000E-01	0.0000E+00	8.7500E-01	-4.6712E-01	2.7500E+00	0.0000E+00	-1.0000E+00	-1.3619E-01
7.5000E-01	0.0000E+00	9.3750E-01	-4.2574E-01	2.7500E+00	0.0000E+00	-7.5000E-01	-1.4492E-01
7.5000E-01	0.0000E+00	1.0000E+00	-3.8333E-01	2.7500E+00	0.0000E+00	-5.0000E-01	-1.4920E-01
7.5000E-01	0.0000E+00	1.0625E+00	-3.4744E-01	2.7500E+00	0.0000E+00	3.7500E-01	-1.5484E-01
7.5000E-01	0.0000E+00	1.1250E+00	-3.2786E-01	2.7500E+00	0.0000E+00	4.3750E-01	-1.5323E-01
7.5000E-01	0.0000E+00	1.1875E+00	-2.9721E-01	2.7500E+00	0.0000E+00	5.0000E-01	-1.5000E-01
7.5000E-01	0.0000E+00	1.2500E+00	-2.7376E-01	2.7500E+00	0.0000E+00	5.6250E-01	-1.4758E-01
7.5000E-01	0.0000E+00	1.3125E+00	-2.5452E-01	2.7500E+00	0.0000E+00	6.2500E-01	-1.4585E-01
7.5000E-01	0.0000E+00	1.3750E+00	-2.3567E-01	2.7500E+00	0.0000E+00	6.8750E-01	-1.4468E-01
7.5000E-01	0.0000E+00	1.4375E+00	-2.2021E-01	2.7500E+00	0.0000E+00	7.5000E-01	-1.4396E-01
7.5000E-01	0.0000E+00	1.5000E+00	-2.0879E-01	2.7500E+00	0.0000E+00	8.1250E-01	-1.4396E-01
1.2500E+00	0.0000E+00	-1.5000E+00	-2.1858E-01	2.7500E+00	0.0000E+00	8.7500E-01	-1.4032E-01
1.2500E+00	0.0000E+00	-1.2500E+00	-2.7078E-01	2.7500E+00	0.0000E+00	9.3750E-01	-1.3952E-01
1.2500E+00	0.0000E+00	-1.0000E+00	-3.3059E-01	2.7500E+00	0.0000E+00	1.0000E+00	-1.3296E-01
1.2500E+00	0.0000E+00	-7.5000E-01	-3.7931E-01	2.7500E+00	0.0000E+00	1.0625E+00	-1.2893E-01
1.2500E+00	0.0000E+00	-5.0000E-01	-4.0819E-01	2.7500E+00	0.0000E+00	1.1250E+00	-1.2973E-01
1.2500E+00	0.0000E+00	5.6250E-01	-4.1942E-01	2.7500E+00	0.0000E+00	1.1875E+00	-1.2893E-01
1.2500E+00	0.0000E+00	6.2500E-01	-4.0230E-01	2.7500E+00	0.0000E+00	1.2500E+00	-1.2742E-01
1.2500E+00	0.0000E+00	6.8750E-01	-3.9606E-01	2.7500E+00	0.0000E+00	1.3750E+00	-1.2178E-01
1.2500E+00	0.0000E+00	7.5000E-01	-3.8659E-01	2.7500E+00	0.0000E+00	1.5000E+00	-1.1452E-01
1.2500E+00	0.0000E+00	8.1250E-01	-3.7618E-01	3.2500E+00	0.0000E+00	-1.5000E+00	-7.9840E-02
1.2500E+00	0.0000E+00	8.7500E-01	-3.7292E-01	3.2500E+00	0.0000E+00	-1.2500E+00	-7.9840E-02
1.2500E+00	0.0000E+00	9.3750E-01	-3.5443E-01	3.2500E+00	0.0000E+00	-1.0000E+00	-7.9840E-02
1.2500E+00	0.0000E+00	1.0000E+00	-3.3550E-01	3.2500E+00	0.0000E+00	-7.5000E-01	-7.9773E-02
1.2500E+00	0.0000E+00	1.0625E+00	-3.2458E-01	3.2500E+00	0.0000E+00	-5.0000E-01	-7.5744E-02
1.2500E+00	0.0000E+00	1.1250E+00	-3.0378E-01	3.2500E+00	0.0000E+00	-2.5000E-01	-6.9298E-02
1.2500E+00	0.0000E+00	1.1875E+00	-2.9195E-01	3.2500E+00	0.0000E+00	2.5000E-01	-6.9298E-02
1.2500E+00	0.0000E+00	1.2500E+00	-2.7822E-01	3.2500E+00	0.0000E+00	3.1250E-01	-7.2461E-02
1.2500E+00	0.0000E+00	1.3125E+00	-2.5979E-01	3.2500E+00	0.0000E+00	3.7500E-01	-7.2521E-02
1.2500E+00	0.0000E+00	1.3750E+00	-2.4468E-01	3.2500E+00	0.0000E+00	4.3750E-01	-7.5631E-02
1.2500E+00	0.0000E+00	1.4375E+00	-2.3326E-01	3.2500E+00	0.0000E+00	5.0000E-01	-7.4071E-02
1.2500E+00	0.0000E+00	1.5000E+00	-2.2310E-01	3.2500E+00	0.0000E+00	5.6250E-01	-7.4133E-02
1.7500E+00	0.0000E+00	-1.5000E+00	-1.9607E-01	3.2500E+00	0.0000E+00	6.2500E-01	-8.1317E-02
1.7500E+00	0.0000E+00	-1.2500E+00	-2.2786E-01	3.2500E+00	0.0000E+00	6.8750E-01	-7.8967E-02
1.7500E+00	0.0000E+00	-1.0000E+00	-2.6393E-01	3.2500E+00	0.0000E+00	7.5000E-01	-7.9840E-02
1.7500E+00	0.0000E+00	-7.5000E-01	-2.9804E-01	3.2500E+00	0.0000E+00	8.1250E-01	-7.9773E-02
1.7500E+00	0.0000E+00	-5.0000E-01	-3.1259E-01	3.2500E+00	0.0000E+00	8.7500E-01	-7.9840E-02
1.7500E+00	0.0000E+00	5.0000E-01	-3.1534E-01	3.2500E+00	0.0000E+00	9.3750E-01	-7.9840E-02
1.7500E+00	0.0000E+00	5.6250E-01	-3.1207E-01	3.2500E+00	0.0000E+00	1.0000E+00	-7.9033E-02
1.7500E+00	0.0000E+00	6.2500E-01	-3.0565E-01	3.2500E+00	0.0000E+00	1.0625E+00	-7.9033E-02
1.7500E+00	0.0000E+00	6.8750E-01	-3.0616E-01	3.2500E+00	0.0000E+00	1.1250E+00	-7.8967E-02
1.7500E+00	0.0000E+00	7.5000E-01	-2.9516E-01	3.2500E+00	0.0000E+00	1.2500E+00	-7.8967E-02
1.7500E+00	0.0000E+00	8.1250E-01	-2.8871E-01	3.2500E+00	0.0000E+00	1.3750E+00	-7.8097E-02
1.7500E+00	0.0000E+00	8.7500E-01	-2.8293E-01	3.2500E+00	0.0000E+00	1.5000E+00	-7.5181E-02
1.7500E+00	0.0000E+00	9.3750E-01	-2.7719E-01	3.7500E+00	0.0000E+00	-1.5000E+00	-3.9320E-02
1.7500E+00	0.0000E+00	1.0000E+00	-2.6597E-01	3.7500E+00	0.0000E+00	-1.2500E+00	-3.4649E-02
1.7500E+00	0.0000E+00	1.0625E+00	-2.5807E-01	3.7500E+00	0.0000E+00	-1.0000E+00	-3.1426E-02
1.7500E+00	0.0000E+00	1.1250E+00	-2.5000E-01	3.7500E+00	0.0000E+00	-7.5000E-01	-1.6936E-02
1.7500E+00	0.0000E+00	1.1875E+00	-2.4194E-01	3.7500E+00	0.0000E+00	-5.0000E-01	0.0000E+00
1.7500E+00	0.0000E+00	1.2500E+00	-2.3065E-01	3.7500E+00	0.0000E+00	-2.5000E-01	2.2562E-02
1.7500E+00	0.0000E+00	1.3125E+00	-2.2581E-01	3.7500E+00	0.0000E+00	1.8750E-01	2.4174E-02
1.7500E+00	0.0000E+00	1.3750E+00	-2.1371E-01	3.7500E+00	0.0000E+00	2.5000E-01	2.0937E-02
1.7500E+00	0.0000E+00	1.4375E+00	-2.0484E-01	3.7500E+00	0.0000E+00	3.1250E-01	1.6922E-02
1.7500E+00	0.0000E+00	1.5000E+00	-1.9839E-01	3.7500E+00	0.0000E+00	3.7500E-01	1.5196E-02
2.2500E+00	0.0000E+00	-1.5000E+00	-1.6076E-01	3.7500E+00	0.0000E+00	4.3750E-01	9.6134E-03
2.2500E+00	0.0000E+00	-1.2500E+00	-1.7683E-01	3.7500E+00	0.0000E+00	5.0000E-01	8.0245E-04
2.2500E+00	0.0000E+00	-1.0000E+00	-1.9355E-01	3.7500E+00	0.0000E+00	5.6250E-01	0.0000E+00
2.2500E+00	0.0000E+00	-7.5000E-01	-2.1345E-01	3.7500E+00	0.0000E+00	6.2500E-01	-4.0299E-03
2.2500E+00	0.0000E+00	-5.0000E-01	-2.2581E-01	3.7500E+00	0.0000E+00	6.8750E-01	-1.0484E-02
2.2500E+00	0.0000E+00	4.3750E-01	-2.3387E-01	3.7500E+00	0.0000E+00	7.5000E-01	-1.5297E-02
2.2500E+00	0.0000E+00	5.0000E-01	-2.2903E-01	3.7500E+00	0.0000E+00	8.1250E-01	-1.6801E-02
2.2500E+00	0.0000E+00	5.6250E-01	-2.2581E-01	3.7500E+00	0.0000E+00	8.7500E-01	-2.1401E-02
2.2500E+00	0.0000E+00	6.2500E-01	-2.2581E-01	3.7500E+00	0.0000E+00	9.3750E-01	-2.4438E-02
2.2500E+00	0.0000E+00	6.8750E-01	-2.2060E-01	3.7500E+00	0.0000E+00	1.0000E+00	-2.7493E-02

3.7500E+00	0.0000E+00	1.0625E+00	-2.9710E-02
3.7500E+00	0.0000E+00	1.1250E+00	-3.0472E-02
3.7500E+00	0.0000E+00	1.2500E+00	-3.2102E-02
3.7500E+00	0.0000E+00	1.3750E+00	-3.5159E-02
4.2500E+00	0.0000E+00	1.5000E+00	-4.1274E-02
4.2500E+00	0.0000E+00	-1.5000E+00	-1.4522E-02
4.2500E+00	0.0000E+00	-1.2500E+00	-3.8217E-03
4.2500E+00	0.0000E+00	-1.0000E+00	2.2930E-03
4.2500E+00	0.0000E+00	-7.5000E-01	2.2911E-02
4.2500E+00	0.0000E+00	-5.0000E-01	5.3414E-02
4.2500E+00	0.0000E+00	-2.5000E-01	1.0530E-01
4.2500E+00	0.0000E+00	6.2500E-02	1.3735E-01
4.2500E+00	0.0000E+00	1.2500E-01	1.3114E-01
4.2500E+00	0.0000E+00	1.8750E-01	1.2285E-01
4.2500E+00	0.0000E+00	2.5000E-01	1.0854E-01
4.2500E+00	0.0000E+00	3.1250E-01	9.4777E-02
4.2500E+00	0.0000E+00	3.7500E-01	8.2548E-02
4.2500E+00	0.0000E+00	4.3750E-01	7.4905E-02
4.2500E+00	0.0000E+00	5.0000E-01	6.1147E-02
4.2500E+00	0.0000E+00	5.6250E-01	4.7389E-02
4.2500E+00	0.0000E+00	6.2500E-01	4.4331E-02
4.2500E+00	0.0000E+00	6.8750E-01	3.3603E-02
4.2500E+00	0.0000E+00	7.5000E-01	2.8996E-02
4.2500E+00	0.0000E+00	8.1250E-01	1.9774E-02
4.2500E+00	0.0000E+00	8.7500E-01	1.5998E-02
4.2500E+00	0.0000E+00	9.3750E-01	1.3690E-02
4.2500E+00	0.0000E+00	1.0000E+00	7.6179E-03
4.2500E+00	0.0000E+00	1.1250E+00	7.6433E-04
4.2500E+00	0.0000E+00	1.2500E+00	0.0000E+00
4.2500E+00	0.0000E+00	1.3750E+00	-6.1147E-03
4.2500E+00	0.0000E+00	1.5000E+00	-1.5236E-02
4.7500E+00	0.0000E+00	-1.5000E+00	-7.6433E-04
4.7500E+00	0.0000E+00	-1.2500E+00	5.3503E-03
4.7500E+00	0.0000E+00	-1.0000E+00	1.8329E-02
4.7500E+00	0.0000E+00	-7.5000E-01	3.2075E-02
4.7500E+00	0.0000E+00	-5.0000E-01	5.7277E-02
4.7500E+00	0.0000E+00	-2.5000E-01	8.8388E-02
4.7500E+00	0.0000E+00	0.0000E+00	1.0952E-01
4.7500E+00	0.0000E+00	6.2500E-02	1.0997E-01
4.7500E+00	0.0000E+00	1.2500E-01	1.0777E-01
4.7500E+00	0.0000E+00	1.8750E-01	1.0395E-01
4.7500E+00	0.0000E+00	2.5000E-01	9.4777E-02
4.7500E+00	0.0000E+00	3.1250E-01	8.7134E-02
4.7500E+00	0.0000E+00	3.7500E-01	
4.7500E+00	0.0000E+00	4.3750E-01	7.6941E-02
4.7500E+00	0.0000E+00	5.0000E-01	7.2370E-02
4.7500E+00	0.0000E+00	5.6250E-01	6.1859E-02
4.7500E+00	0.0000E+00	6.2500E-01	7.2551E-02
4.7500E+00	0.0000E+00	6.8750E-01	4.8917E-02
4.7500E+00	0.0000E+00	7.5000E-01	4.5096E-02
4.7500E+00	0.0000E+00	8.1250E-01	3.6688E-02
4.7500E+00	0.0000E+00	8.7500E-01	3.2102E-02
4.7500E+00	0.0000E+00	9.3750E-01	3.0573E-02
4.7500E+00	0.0000E+00	1.0000E+00	2.5966E-02
4.7500E+00	0.0000E+00	1.1250E+00	2.2892E-02
4.7500E+00	0.0000E+00	1.2500E+00	1.5971E-02
4.7500E+00	0.0000E+00	1.3750E+00	2.5000E-03
4.7500E+00	0.0000E+00	1.5000E+00	4.5556E-03

Table D.2-3 Time-mean static pressures on the test wall surrounding the wing
at $Re_{\theta} = 2420$.

File E36225.RES

Time-mean static pressures on the test-wall surrounding the wing

Flow temperature (degrees centigrade) = 25

density, (kilograms per meter cubed) = 1.091098

viscosity (meters squared per second) = 1.688581E-05

Atmospheric pressure (Pascals) = 93360

Velocity of undisturbed free stream (U_{ref} , in m/s) = 7.7186

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 5.280292E-03

Estimated momentum thickness Reynolds number = 2420.506

X/T	Y/T	Z/T	Cp				
-2.0000E+00	0.0000E+00	-1.5000E+00	3.1348E-02	-2.5000E-01	0.0000E+00	1.0000E+00	0.0000E+00
-2.0000E+00	0.0000E+00	-1.2500E+00	3.4565E-02	-2.5000E-01	0.0000E+00	1.1250E+00	-7.4019E-03
-2.0000E+00	0.0000E+00	-1.0000E+00	4.8390E-02	-2.5000E-01	0.0000E+00	1.2500E+00	-1.4917E-02
-2.0000E+00	0.0000E+00	-7.5000E-01	8.9868E-02	-2.5000E-01	0.0000E+00	1.3750E+00	-2.2375E-02
-2.0000E+00	0.0000E+00	-5.0000E-01	9.6781E-02	-2.5000E-01	0.0000E+00	1.5000E+00	-3.0063E-02
-2.0000E+00	0.0000E+00	-2.5000E-01	9.7153E-02	0.0000E+00	0.0000E+00	-1.5000E+00	-9.6959E-02
-2.0000E+00	0.0000E+00	0.0000E+00	9.6781E-02	0.0000E+00	0.0000E+00	-1.2500E+00	-1.0442E-01
-2.0000E+00	0.0000E+00	2.5000E-01	9.6781E-02	0.0000E+00	0.0000E+00	-1.0000E+00	-1.0363E-01
-2.0000E+00	0.0000E+00	5.0000E-01	9.3324E-02	0.0000E+00	0.0000E+00	-7.5000E+00	-9.6959E-02
-2.0000E+00	0.0000E+00	7.5000E-01	8.4683E-02	0.0000E+00	0.0000E+00	-5.0000E-01	-5.9667E-02
-2.0000E+00	0.0000E+00	1.0000E+00	7.6042E-02	0.0000E+00	0.0000E+00	-2.5000E-01	2.7757E-01
-2.0000E+00	0.0000E+00	1.2500E+00	6.2216E-02	0.0000E+00	0.0000E+00	2.5000E-01	2.7757E-01
-2.0000E+00	0.0000E+00	1.5000E+00	3.1228E-02	0.0000E+00	0.0000E+00	3.1250E-01	1.4917E-01
-1.5000E+00	0.0000E+00	-1.5000E+00	2.2158E-02	0.0000E+00	0.0000E+00	3.7500E-01	2.6509E-02
-1.5000E+00	0.0000E+00	-1.2500E+00	3.6930E-02	0.0000E+00	0.0000E+00	4.3750E-01	-1.4917E-02
-1.5000E+00	0.0000E+00	-1.0000E+00	5.1701E-02	0.0000E+00	0.0000E+00	5.0000E-01	-5.9667E-02
-1.5000E+00	0.0000E+00	-7.5000E-01	7.6350E-02	0.0000E+00	0.0000E+00	5.6250E-01	-6.7125E-02
-1.5000E+00	0.0000E+00	-5.0000E-01	8.2978E-02	0.0000E+00	0.0000E+00	6.2500E-01	-7.5157E-02
-1.5000E+00	0.0000E+00	-2.5000E-01	9.6017E-02	0.0000E+00	0.0000E+00	6.8750E-01	-8.5771E-02
-1.5000E+00	0.0000E+00	0.0000E+00	9.9710E-02	0.0000E+00	0.0000E+00	7.5000E-01	-8.9500E-02
-1.5000E+00	0.0000E+00	2.5000E-01	9.4528E-02	0.0000E+00	0.0000E+00	8.1250E-01	-9.6224E-02
-1.5000E+00	0.0000E+00	5.0000E-01	8.6586E-02	0.0000E+00	0.0000E+00	8.7500E-01	-1.0442E-01
-1.5000E+00	0.0000E+00	7.5000E-01	7.2155E-02	0.0000E+00	0.0000E+00	9.3750E-01	-1.0522E-01
-1.5000E+00	0.0000E+00	1.0000E+00	4.7633E-02	0.0000E+00	0.0000E+00	1.0000E+00	-1.0522E-01
-1.5000E+00	0.0000E+00	1.2500E+00	3.2977E-02	0.0000E+00	0.0000E+00	1.1250E+00	-9.9925E-02
-1.5000E+00	0.0000E+00	1.5000E+00	2.2158E-02	0.0000E+00	0.0000E+00	1.2500E+00	-1.0069E-01
-1.0000E+00	0.0000E+00	-1.5000E+00	2.9385E-02	0.0000E+00	0.0000E+00	1.3750E+00	-9.6224E-02
-1.0000E+00	0.0000E+00	-1.2500E+00	5.8770E-02	0.0000E+00	0.0000E+00	1.5000E+00	-8.0074E-02
-1.0000E+00	0.0000E+00	-1.0000E+00	7.3462E-02	2.5000E-01	0.0000E+00	-1.5000E+00	-1.1347E-01
-1.0000E+00	0.0000E+00	-7.5000E-01	1.1754E-01	2.5000E-01	0.0000E+00	-1.2500E+00	-1.5507E-01
-1.0000E+00	0.0000E+00	-5.0000E-01	1.4692E-01	2.5000E-01	0.0000E+00	-1.0000E+00	-1.9511E-01
-1.0000E+00	0.0000E+00	-2.5000E-01	1.7764E-01	2.5000E-01	0.0000E+00	-7.5000E-01	-2.7233E-01
-1.0000E+00	0.0000E+00	0.0000E+00	2.0138E-01	2.5000E-01	0.0000E+00	-5.0000E-01	-3.2906E-01
-1.0000E+00	0.0000E+00	2.5000E-01	1.8646E-01	2.5000E-01	0.0000E+00	4.3750E-01	-3.1517E-01
-1.0000E+00	0.0000E+00	5.0000E-01	1.5427E-01	2.5000E-01	0.0000E+00	5.0000E-01	-3.2498E-01
-1.0000E+00	0.0000E+00	7.5000E-01	1.1754E-01	2.5000E-01	0.0000E+00	5.6250E-01	-3.2384E-01
-1.0000E+00	0.0000E+00	1.0000E+00	8.1420E-02	2.5000E-01	0.0000E+00	6.2500E-01	-3.1759E-01
-1.0000E+00	0.0000E+00	1.2500E+00	6.7125E-02	2.5000E-01	0.0000E+00	6.8750E-01	-3.0895E-01
-1.0000E+00	0.0000E+00	1.5000E+00	2.9833E-02	2.5000E-01	0.0000E+00	7.5000E-01	-2.7545E-01
-5.0000E-01	0.0000E+00	-1.5000E+00	0.0000E+00	2.5000E-01	0.0000E+00	8.1250E-01	-2.5851E-01
-5.0000E-01	0.0000E+00	-1.2500E+00	1.1103E-02	2.5000E-01	0.0000E+00	8.7500E-01	-2.4004E-01
-5.0000E-01	0.0000E+00	-1.0000E+00	5.8770E-02	2.5000E-01	0.0000E+00	9.3750E-01	-2.2527E-01
-5.0000E-01	0.0000E+00	-7.5000E-01	1.1933E-01	2.5000E-01	0.0000E+00	1.0000E+00	-1.9728E-01
-5.0000E-01	0.0000E+00	-5.0000E-01	1.8646E-01	2.5000E-01	0.0000E+00	1.0625E+00	-1.8760E-01
-5.0000E-01	0.0000E+00	-2.5000E-01	2.7596E-01	2.5000E-01	0.0000E+00	1.1250E+00	-1.6988E-01
-5.0000E-01	0.0000E+00	0.0000E+00	3.1325E-01	2.5000E-01	0.0000E+00	1.1875E+00	-1.6122E-01
-5.0000E-01	0.0000E+00	1.2500E-01	2.9385E-01	2.5000E-01	0.0000E+00	1.2500E+00	-1.5023E-01
-5.0000E-01	0.0000E+00	2.5000E-01	2.3121E-01	2.5000E-01	0.0000E+00	1.3125E+00	-1.3924E-01
-5.0000E-01	0.0000E+00	3.7500E-01	2.3121E-01	2.5000E-01	0.0000E+00	1.3750E+00	-1.3400E-01
-5.0000E-01	0.0000E+00	5.0000E-01	1.9392E-01	2.5000E-01	0.0000E+00	1.4375E+00	-1.2283E-01
-5.0000E-01	0.0000E+00	6.2500E-01	1.4917E-01	2.5000E-01	0.0000E+00	1.5000E+00	-1.1911E-01
-5.0000E-01	0.0000E+00	7.5000E-01	1.1387E-01	5.0000E-01	0.0000E+00	-1.5000E+00	-1.6249E-01
-5.0000E-01	0.0000E+00	1.0000E+00	5.9667E-02	5.0000E-01	0.0000E+00	-1.2500E+00	-2.0681E-01
-5.0000E-01	0.0000E+00	1.2500E+00	1.1188E-02	5.0000E-01	0.0000E+00	-1.0000E+00	-3.0652E-01
-5.0000E-01	0.0000E+00	1.5000E+00	0.0000E+00	5.0000E-01	0.0000E+00	-7.5000E-01	-4.5784E-01
-2.5000E-01	0.0000E+00	-1.5000E+00	-2.2375E-02	5.0000E-01	0.0000E+00	-5.0000E-01	-6.3278E-01
-2.5000E-01	0.0000E+00	-1.2500E+00	-1.4917E-02	5.0000E-01	0.0000E+00	5.0000E-01	-6.1303E-01
-2.5000E-01	0.0000E+00	-1.0000E+00	0.0000E+00	5.0000E-01	0.0000E+00	5.6250E-01	-5.6971E-01
-2.5000E-01	0.0000E+00	-7.5000E-01	5.9667E-02	5.0000E-01	0.0000E+00	6.2500E-01	-5.5328E-01
-2.5000E-01	0.0000E+00	-5.0000E-01	1.5031E-01	5.0000E-01	0.0000E+00	6.8750E-01	-5.0224E-01
-2.5000E-01	0.0000E+00	-2.5000E-01	3.0296E-01	5.0000E-01	0.0000E+00	7.5000E-01	-4.6156E-01
-2.5000E-01	0.0000E+00	0.0000E+00	3.9970E-01	5.0000E-01	0.0000E+00	8.1250E-01	-4.2100E-01
-2.5000E-01	0.0000E+00	1.2500E-01	3.7009E-01	5.0000E-01	0.0000E+00	8.7500E-01	-3.9456E-01
-2.5000E-01	0.0000E+00	2.5000E-01	3.0348E-01	5.0000E-01	0.0000E+00	9.3750E-01	-3.3710E-01
-2.5000E-01	0.0000E+00	3.7500E-01	2.2206E-01	5.0000E-01	0.0000E+00	1.0000E+00	-3.0778E-01
-2.5000E-01	0.0000E+00	5.0000E-01	1.5174E-01	5.0000E-01	0.0000E+00	1.0625E+00	-2.7481E-01
-2.5000E-01	0.0000E+00	6.2500E-01	9.6959E-02	5.0000E-01	0.0000E+00	1.1250E+00	-2.5851E-01
-2.5000E-01	0.0000E+00	7.5000E-01	6.7642E-02	5.0000E-01	0.0000E+00	1.1875E+00	-2.4004E-01
-2.5000E-01	0.0000E+00	8.7500E-01	2.9607E-02				

5.0000E-01 0.0000E+00 1.2500E+00 -2.2527E-01
5.0000E-01 0.0000E+00 1.3125E+00 -1.9942E-01
5.0000E-01 0.0000E+00 1.3750E+00 -1.8687E-01
5.0000E-01 0.0000E+00 1.4375E+00 -1.7588E-01
5.0000E-01 0.0000E+00 1.5000E+00 -1.6488E-01
7.5000E-01 0.0000E+00 -1.5000E+00 -2.1252E-01
7.5000E-01 0.0000E+00 -1.2500E+00 -2.5649E-01
7.5000E-01 0.0000E+00 -1.0000E+00 -3.6438E-01
7.5000E-01 0.0000E+00 -7.5000E-01 -5.1951E-01
7.5000E-01 0.0000E+00 5.6250E-01 -7.6946E-01
7.5000E-01 0.0000E+00 6.2500E-01 -6.7419E-01
7.5000E-01 0.0000E+00 6.8750E-01 -6.0564E-01
7.5000E-01 0.0000E+00 7.5000E-01 -5.2397E-01
7.5000E-01 0.0000E+00 8.1250E-01 -4.8000E-01
7.5000E-01 0.0000E+00 8.7500E-01 -4.4719E-01
7.5000E-01 0.0000E+00 9.3750E-01 -4.0720E-01
7.5000E-01 0.0000E+00 1.0000E+00 -3.7668E-01
7.5000E-01 0.0000E+00 1.0625E+00 -3.3606E-01
7.5000E-01 0.0000E+00 1.1250E+00 -3.2384E-01
7.5000E-01 0.0000E+00 1.1875E+00 -2.8805E-01
7.5000E-01 0.0000E+00 1.2500E+00 -2.6382E-01
7.5000E-01 0.0000E+00 1.3125E+00 -2.4723E-01
7.5000E-01 0.0000E+00 1.3750E+00 -2.3450E-01
7.5000E-01 0.0000E+00 1.4375E+00 -2.1985E-01
7.5000E-01 0.0000E+00 1.5000E+00 -1.9786E-01
1.2500E+00 0.0000E+00 -1.5000E+00 -2.1419E-01
1.2500E+00 0.0000E+00 -1.2500E+00 -2.6220E-01
1.2500E+00 0.0000E+00 -1.0000E+00 -3.1994E-01
1.2500E+00 0.0000E+00 -7.5000E-01 -3.7084E-01
1.2500E+00 0.0000E+00 -5.0000E-01 -3.8684E-01
1.2500E+00 0.0000E+00 5.6250E-01 -3.9266E-01
1.2500E+00 0.0000E+00 6.2500E-01 -3.9839E-01
1.2500E+00 0.0000E+00 6.8750E-01 -3.8107E-01
1.2500E+00 0.0000E+00 7.5000E-01 -3.7374E-01
1.2500E+00 0.0000E+00 8.1250E-01 -3.6357E-01
1.2500E+00 0.0000E+00 8.7500E-01 -3.5175E-01
1.2500E+00 0.0000E+00 9.3750E-01 -3.4076E-01
1.2500E+00 0.0000E+00 1.0000E+00 -3.2977E-01
1.2500E+00 0.0000E+00 1.0625E+00 -3.1511E-01
1.2500E+00 0.0000E+00 1.1250E+00 -2.9913E-01
1.2500E+00 0.0000E+00 1.1875E+00 -2.7697E-01
1.2500E+00 0.0000E+00 1.2500E+00 -2.6177E-01
1.2500E+00 0.0000E+00 1.3125E+00 -2.5450E-01
1.2500E+00 0.0000E+00 1.3750E+00 -2.4359E-01
1.2500E+00 0.0000E+00 1.4375E+00 -2.2905E-01
1.2500E+00 0.0000E+00 1.5000E+00 -2.2527E-01
1.7500E+00 0.0000E+00 -1.5000E+00 -1.9203E-01
1.7500E+00 0.0000E+00 -1.2500E+00 -2.2527E-01
1.7500E+00 0.0000E+00 -1.0000E+00 -2.4916E-01
1.7500E+00 0.0000E+00 -7.5000E-01 -2.6904E-01
1.7500E+00 0.0000E+00 -5.0000E-01 -2.9944E-01
1.7500E+00 0.0000E+00 5.0000E-01 -3.0412E-01
1.7500E+00 0.0000E+00 5.6250E-01 -3.0282E-01
1.7500E+00 0.0000E+00 6.2500E-01 -2.9544E-01
1.7500E+00 0.0000E+00 6.8750E-01 -2.8805E-01
1.7500E+00 0.0000E+00 7.5000E-01 -2.9046E-01
1.7500E+00 0.0000E+00 8.1250E-01 -2.8467E-01
1.7500E+00 0.0000E+00 8.7500E-01 -2.7898E-01
1.7500E+00 0.0000E+00 9.3750E-01 -2.7129E-01
1.7500E+00 0.0000E+00 1.0000E+00 -2.6442E-01
1.7500E+00 0.0000E+00 1.0625E+00 -2.5457E-01
1.7500E+00 0.0000E+00 1.1250E+00 -2.4759E-01
1.7500E+00 0.0000E+00 1.1875E+00 -2.4062E-01
1.7500E+00 0.0000E+00 1.2500E+00 -2.3365E-01
1.7500E+00 0.0000E+00 1.3125E+00 -2.2493E-01
1.7500E+00 0.0000E+00 1.3750E+00 -2.1455E-01
1.7500E+00 0.0000E+00 1.4375E+00 -2.0604E-01
1.7500E+00 0.0000E+00 1.5000E+00 -2.0070E-01
2.2500E+00 0.0000E+00 -1.5000E+00 -1.6264E-01
2.2500E+00 0.0000E+00 -1.0000E+00 -1.9724E-01
2.2500E+00 0.0000E+00 -7.5000E-01 -2.1790E-01
2.2500E+00 0.0000E+00 -5.0000E-01 -2.2147E-01
2.2500E+00 0.0000E+00 4.3750E-01 -2.3531E-01
2.2500E+00 0.0000E+00 5.0000E-01 -2.3185E-01
2.2500E+00 0.0000E+00 5.6250E-01 -2.3008E-01
2.2500E+00 0.0000E+00 6.2500E-01 -2.2493E-01
2.2500E+00 0.0000E+00 6.8750E-01 -2.2493E-01

2.2500E+00 0.0000E+00 7.5000E-01 -2.1109E-01
2.2500E+00 0.0000E+00 8.1250E-01 -2.1087E-01
2.2500E+00 0.0000E+00 8.7500E-01 -2.0575E-01
2.2500E+00 0.0000E+00 9.3750E-01 -1.9917E-01
2.2500E+00 0.0000E+00 1.0000E+00 -1.9574E-01
2.2500E+00 0.0000E+00 1.0625E+00 -1.8897E-01
2.2500E+00 0.0000E+00 1.1250E+00 -1.8200E-01
2.2500E+00 0.0000E+00 1.1875E+00 -1.8134E-01
2.2500E+00 0.0000E+00 1.2500E+00 -1.7302E-01
2.2500E+00 0.0000E+00 1.3125E+00 -1.6956E-01
2.2500E+00 0.0000E+00 1.3750E+00 -1.6390E-01
2.2500E+00 0.0000E+00 1.5000E+00 -1.5796E-01
2.7500E+00 0.0000E+00 -1.5000E+00 -1.0989E-01
2.7500E+00 0.0000E+00 -1.2500E+00 -1.2019E-01
2.7500E+00 0.0000E+00 -1.0000E+00 -1.3393E-01
2.7500E+00 0.0000E+00 -7.5000E-01 -1.4079E-01
2.7500E+00 0.0000E+00 -5.0000E-01 -1.4534E-01
2.7500E+00 0.0000E+00 3.7500E-01 -1.5226E-01
2.7500E+00 0.0000E+00 4.3750E-01 -1.4995E-01
2.7500E+00 0.0000E+00 5.0000E-01 -1.4646E-01
2.7500E+00 0.0000E+00 5.6250E-01 -1.4188E-01
2.7500E+00 0.0000E+00 6.2500E-01 -1.4079E-01
2.7500E+00 0.0000E+00 6.8750E-01 -1.3736E-01
2.7500E+00 0.0000E+00 7.5000E-01 -1.3736E-01
2.7500E+00 0.0000E+00 8.1250E-01 -1.3842E-01
2.7500E+00 0.0000E+00 8.7500E-01 -1.3393E-01
2.7500E+00 0.0000E+00 9.3750E-01 -1.3496E-01
2.7500E+00 0.0000E+00 1.0000E+00 -1.3049E-01
2.7500E+00 0.0000E+00 1.0625E+00 -1.2706E-01
2.7500E+00 0.0000E+00 1.1250E+00 -1.2706E-01
2.7500E+00 0.0000E+00 1.1875E+00 -1.2019E-01
2.7500E+00 0.0000E+00 1.2500E+00 -1.1676E-01
2.7500E+00 0.0000E+00 1.3750E+00 -1.1419E-01
2.7500E+00 0.0000E+00 1.5000E+00 -1.0810E-01
3.2500E+00 0.0000E+00 -1.5000E+00 -7.3232E-02
3.2500E+00 0.0000E+00 -1.2500E+00 -7.5437E-02
3.2500E+00 0.0000E+00 -1.0000E+00 -7.5437E-02
3.2500E+00 0.0000E+00 -7.5000E-01 -7.5437E-02
3.2500E+00 0.0000E+00 -5.0000E-01 -7.2114E-02
3.2500E+00 0.0000E+00 -2.5000E-01 -7.2669E-02
3.2500E+00 0.0000E+00 2.5000E-01 -7.2669E-02
3.2500E+00 0.0000E+00 3.1250E-01 -7.2669E-02
3.2500E+00 0.0000E+00 3.7500E-01 -7.2669E-02
3.2500E+00 0.0000E+00 4.3750E-01 -7.2669E-02
3.2500E+00 0.0000E+00 5.0000E-01 -7.2669E-02
3.2500E+00 0.0000E+00 5.6250E-01 -7.2114E-02
3.2500E+00 0.0000E+00 6.2500E-01 -7.4861E-02
3.2500E+00 0.0000E+00 6.8750E-01 -7.4861E-02
3.2500E+00 0.0000E+00 7.5000E-01 -7.4861E-02
3.2500E+00 0.0000E+00 8.1250E-01 -7.5437E-02
3.2500E+00 0.0000E+00 8.7500E-01 -7.5437E-02
3.2500E+00 0.0000E+00 9.3750E-01 -7.5437E-02
3.2500E+00 0.0000E+00 1.0000E+00 -7.2669E-02
3.2500E+00 0.0000E+00 1.0625E+00 -7.3232E-02
3.2500E+00 0.0000E+00 1.1250E+00 -7.2669E-02
3.2500E+00 0.0000E+00 1.2500E+00 -7.2669E-02
3.2500E+00 0.0000E+00 1.3750E+00 -7.3488E-02
3.2500E+00 0.0000E+00 1.5000E+00 -7.2114E-02
3.2500E+00 0.0000E+00 -1.5000E+00 -3.4340E-02
3.7500E+00 0.0000E+00 -1.2500E+00 -3.0906E-02
3.7500E+00 0.0000E+00 -1.0000E+00 -2.7683E-02
3.7500E+00 0.0000E+00 -7.5000E-01 -1.3842E-02
3.7500E+00 0.0000E+00 -5.0000E-01 -1.2891E-02
3.7500E+00 0.0000E+00 -2.5000E-01 3.1385E-02
3.7500E+00 0.0000E+00 1.8750E-01 3.1144E-02
3.7500E+00 0.0000E+00 2.5000E-01 3.1144E-02
3.7500E+00 0.0000E+00 3.1250E-01 2.4223E-02
3.7500E+00 0.0000E+00 3.7500E-01 1.7170E-02
3.7500E+00 0.0000E+00 4.3750E-01 1.0302E-02
3.7500E+00 0.0000E+00 5.0000E-01 3.4340E-03
3.7500E+00 0.0000E+00 5.6250E-01 -1.2891E-02
3.7500E+00 0.0000E+00 6.2500E-01 -3.4604E-03
3.7500E+00 0.0000E+00 6.8750E-01 -5.5796E-03
3.7500E+00 0.0000E+00 7.5000E-01 -2.0318E-02
3.7500E+00 0.0000E+00 8.1250E-01 -2.7758E-02
3.7500E+00 0.0000E+00 8.7500E-01 -2.7758E-02
3.7500E+00 0.0000E+00 9.3750E-01 -3.1470E-02
3.7500E+00 0.0000E+00 1.0000E+00 -3.4966E-02

3.7500E+00	0.0000E+00	1.0625E+00	-3.8463E-02
3.7500E+00	0.0000E+00	1.1250E+00	-4.1960E-02
3.7500E+00	0.0000E+00	1.2500E+00	-4.1319E-02
3.7500E+00	0.0000E+00	1.3750E+00	-4.3385E-02
3.7500E+00	0.0000E+00	1.5000E+00	-4.4762E-02
4.2500E+00	0.0000E+00	-1.5000E+00	-1.3879E-02
4.2500E+00	0.0000E+00	-1.2500E+00	-1.0409E-02
4.2500E+00	0.0000E+00	-1.0000E+00	-2.9988E-09
4.2500E+00	0.0000E+00	-7.5000E-01	2.4103E-02
4.2500E+00	0.0000E+00	-5.0000E-01	4.8206E-02
4.2500E+00	0.0000E+00	-2.5000E-01	9.6411E-02
4.2500E+00	0.0000E+00	6.2500E-02	1.2491E-01
4.2500E+00	0.0000E+00	1.2500E-01	1.2051E-01
4.2500E+00	0.0000E+00	1.8750E-01	1.1103E-01
4.2500E+00	0.0000E+00	2.5000E-01	9.9855E-02
4.2500E+00	0.0000E+00	3.1250E-01	9.3683E-02
4.2500E+00	0.0000E+00	3.7500E-01	7.5752E-02
4.2500E+00	0.0000E+00	4.3750E-01	6.4926E-02
4.2500E+00	0.0000E+00	5.0000E-01	5.4675E-02
4.2500E+00	0.0000E+00	5.6250E-01	4.5107E-02
4.2500E+00	0.0000E+00	6.2500E-01	3.4697E-02
4.2500E+00	0.0000E+00	6.8750E-01	2.7758E-02
4.2500E+00	0.0000E+00	7.5000E-01	2.4288E-02
4.2500E+00	0.0000E+00	8.1250E-01	2.0818E-02
4.2500E+00	0.0000E+00	8.7500E-01	1.3773E-02
4.2500E+00	0.0000E+00	9.3750E-01	1.0330E-02
4.2500E+00	0.0000E+00	1.0000E+00	6.8343E-03
4.2500E+00	0.0000E+00	1.1250E+00	-2.9759E-09
4.2500E+00	0.0000E+00	1.2500E+00	-6.9395E-03
4.2500E+00	0.0000E+00	1.3750E+00	-1.3879E-02
4.2500E+00	0.0000E+00	1.5000E+00	-1.3773E-02
4.7500E+00	0.0000E+00	-1.5000E+00	-3.4433E-03
4.7500E+00	0.0000E+00	-1.2500E+00	1.0330E-02
4.7500E+00	0.0000E+00	-1.0000E+00	2.4103E-02
4.7500E+00	0.0000E+00	-7.5000E-01	3.0989E-02
4.7500E+00	0.0000E+00	-5.0000E-01	5.5092E-02
4.7500E+00	0.0000E+00	-2.5000E-01	8.9525E-02
4.7500E+00	0.0000E+00	0.0000E+00	1.0252E-01
4.7500E+00	0.0000E+00	6.2500E-02	9.9098E-02
4.7500E+00	0.0000E+00	1.2500E-01	9.5681E-02
4.7500E+00	0.0000E+00	1.8750E-01	9.6411E-02
4.7500E+00	0.0000E+00	2.5000E-01	9.2968E-02
4.7500E+00	0.0000E+00	3.1250E-01	8.6082E-02
4.7500E+00	0.0000E+00	3.7500E-01	7.5752E-02
4.7500E+00	0.0000E+00	4.3750E-01	6.8344E-02
4.7500E+00	0.0000E+00	5.0000E-01	5.8535E-02
4.7500E+00	0.0000E+00	5.6250E-01	5.4675E-02
4.7500E+00	0.0000E+00	6.2500E-01	4.8206E-02
4.7500E+00	0.0000E+00	6.8750E-01	3.7876E-02
4.7500E+00	0.0000E+00	7.5000E-01	3.4433E-02
4.7500E+00	0.0000E+00	8.1250E-01	2.7973E-02
4.7500E+00	0.0000E+00	8.7500E-01	2.7758E-02
4.7500E+00	0.0000E+00	9.3750E-01	2.4103E-02
4.7500E+00	0.0000E+00	1.0000E+00	2.4103E-02
4.7500E+00	0.0000E+00	1.1250E+00	2.0660E-02
4.7500E+00	0.0000E+00	1.2500E+00	1.3773E-02
4.7500E+00	0.0000E+00	1.3750E+00	6.8865E-03
4.7500E+00	0.0000E+00	1.5000E+00	-2.9988E-09
4.7500E+00	0.0000E+00	0.0000E+00	1.0674E-01

D.3 MEASUREMENTS MADE TO EXAMINE BLOCKAGE-INDUCED PRESSURE GRADIENTS

Pressures were measured on the test wall along lines parallel with the X axis $\pm 3.19T$ from the centerline of the wing (figure D.2-1). These data were compared with pressures calculated for a wing of infinite span in an unbounded potential flow, to give some indication of the magnitude of the blockage-induced pressure gradients in the real flow. The results, plotted in figure D.3-1 and listed in the subsequent tables, indicate that these were minimal.

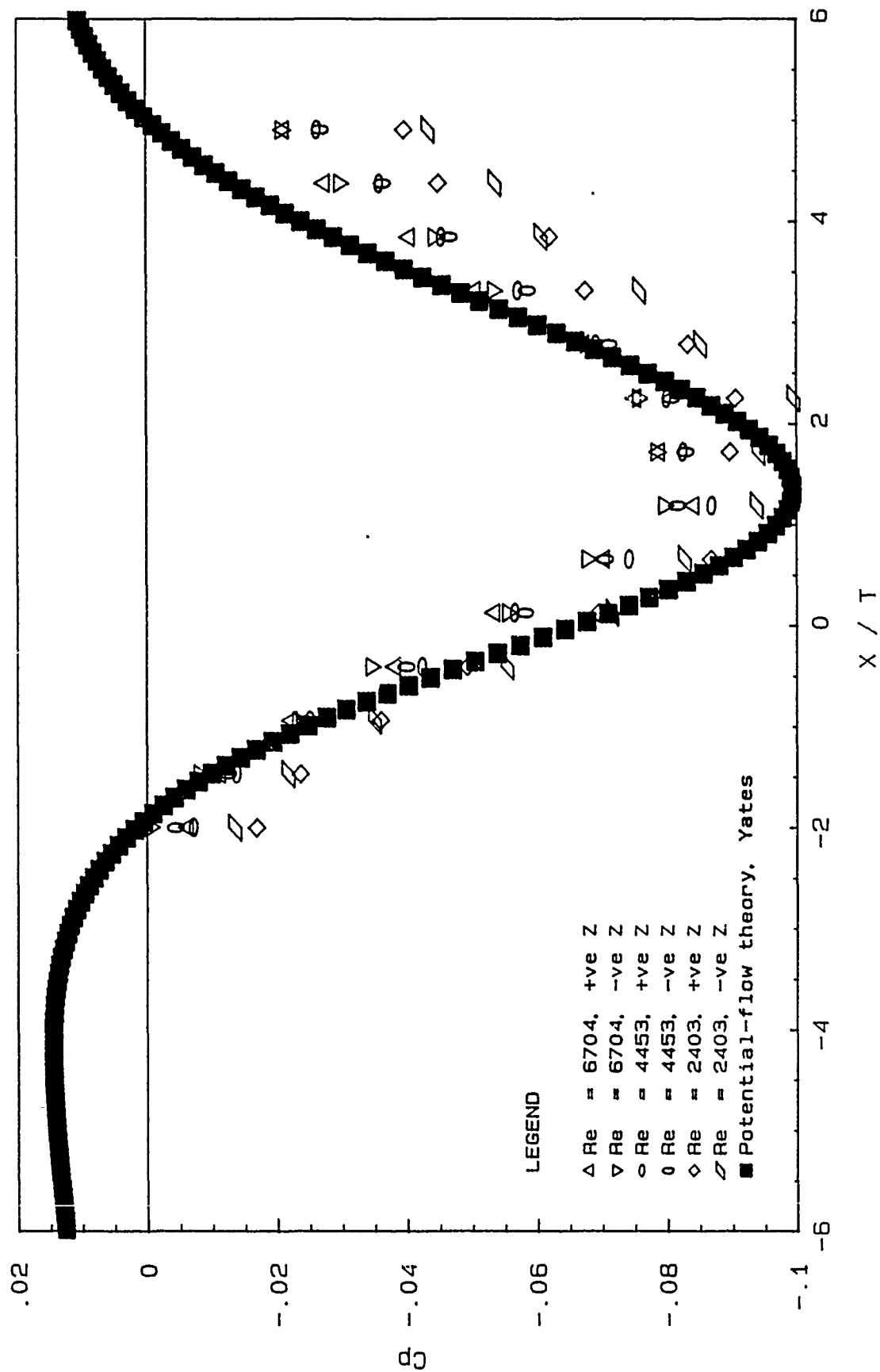


Figure D.3-1 Distributions of time-mean static pressure along lines $\pm 3.17T$ from the centerline of the wing, comparison with potential-flow computation.

File E553270.DAT

Cp distributions measured +-3.17T from the plane of symmetry

Flow temperature (degrees centigrade) = 27.6

density (kilograms per meter cubed) = 1.095104

viscosity (meters squared per second) = 1.688541E-05

Atmospheric pressure (Pascals) = 94510

Velocity of undisturbed free stream (Uref, in m/s) = 27.63648

Reynolds number based on Uref and chord of wing = 498868.5

Date 11/30/88

X/T	Y/T	Z/T	Cp
-2.0000E+00	0.0000E+00	-3.1870E+00	-4.4510E-04
-2.0000E+00	0.0000E+00	3.1870E+00	-6.3043E-03
-1.4688E+00	0.0000E+00	-3.1870E+00	-7.9326E-03
-1.4688E+00	0.0000E+00	3.1870E+00	-1.1288E-02
-9.3768E-01	0.0000E+00	-3.1870E+00	-2.3186E-02
-9.3768E-01	0.0000E+00	3.1870E+00	-2.2276E-02
-4.0652E-01	0.0000E+00	-3.1870E+00	-3.4505E-02
-4.0652E-01	0.0000E+00	3.1870E+00	-3.8267E-02
1.2465E-01	0.0000E+00	-3.1870E+00	-5.5439E-02
1.2465E-01	0.0000E+00	3.1870E+00	-5.3488E-02
6.5581E-01	0.0000E+00	-3.1870E+00	-6.7749E-02
6.5581E-01	0.0000E+00	3.1870E+00	-7.0438E-02
1.1870E+00	0.0000E+00	-3.1870E+00	-7.9552E-02
1.1870E+00	0.0000E+00	3.1870E+00	-8.4172E-02
1.7181E+00	0.0000E+00	-3.1870E+00	-7.8375E-02
1.7181E+00	0.0000E+00	3.1870E+00	-7.9869E-02
2.2493E+00	0.0000E+00	-3.1870E+00	-7.5603E-02
2.2493E+00	0.0000E+00	3.1870E+00	-7.5304E-02
2.7805E+00	0.0000E+00	-3.1870E+00	-6.7611E-02
2.7805E+00	0.0000E+00	3.1870E+00	-6.7370E-02
3.3116E+00	0.0000E+00	-3.1870E+00	-5.3296E-02
3.3116E+00	0.0000E+00	3.1870E+00	-5.0580E-02
3.8428E+00	0.0000E+00	-3.1870E+00	-4.4239E-02
3.8428E+00	0.0000E+00	3.1870E+00	-4.0551E-02
4.3739E+00	0.0000E+00	-3.1870E+00	-2.9724E-02
4.3739E+00	0.0000E+00	3.1870E+00	-2.7485E-02
4.9051E+00	0.0000E+00	-3.1870E+00	-2.0728E-02
4.9051E+00	0.0000E+00	3.1870E+00	-2.1179E-02

Table D.3-1 Cp measurements on the test wall 3.17T from the plane of symmetry, Re = 6704.

File E554245.DAT

Cp distributions measured $\pm 3.17T$ from the plane of symmetry

Flow temperature (degrees centigrade) = 28

density (kilograms per meter cubed) = 1.093649

viscosity (meters squared per second) = 1.692517E-05

Atmospheric pressure (Pascals) = 94510

Velocity of undisturbed free stream (Uref, in m/s) = 16.59324

Reynolds number based on Uref and chord of wing = 298822.4

Date 11/30/88

X/T	Y/T	Z/T	Cp
-2.0000E+00	0.0000E+00	-3.1870E+00	-4.3566E-03
-2.0000E+00	0.0000E+00	3.1870E+00	-7.1033E-03
-1.4688E+00	0.0000E+00	-3.1870E+00	-1.2438E-02
-1.4688E+00	0.0000E+00	3.1870E+00	-1.3784E-02
-9.3768E-01	0.0000E+00	-3.1870E+00	-2.4245E-02
-9.3768E-01	0.0000E+00	3.1870E+00	-2.5053E-02
-4.0652E-01	0.0000E+00	-3.1870E+00	-3.9931E-02
-4.0652E-01	0.0000E+00	3.1870E+00	-4.2339E-02
1.2465E-01	0.0000E+00	-3.1870E+00	-5.8157E-02
1.2465E-01	0.0000E+00	3.1870E+00	-5.6561E-02
6.5581E-01	0.0000E+00	-3.1870E+00	-7.0560E-02
6.5581E-01	0.0000E+00	3.1870E+00	-7.4222E-02
1.1870E+00	0.0000E+00	-3.1870E+00	-8.1572E-02
1.1870E+00	0.0000E+00	3.1870E+00	-8.6847E-02
1.7181E+00	0.0000E+00	-3.1870E+00	-8.2840E-02
1.7181E+00	0.0000E+00	3.1870E+00	-8.2442E-02
2.2493E+00	0.0000E+00	-3.1870E+00	-8.0771E-02
2.2493E+00	0.0000E+00	3.1870E+00	-8.0019E-02
2.7805E+00	0.0000E+00	-3.1870E+00	-7.1157E-02
2.7805E+00	0.0000E+00	3.1870E+00	-6.9130E-02
3.3116E+00	0.0000E+00	-3.1870E+00	-5.8572E-02
3.3116E+00	0.0000E+00	3.1870E+00	-5.7120E-02
3.8428E+00	0.0000E+00	-3.1870E+00	-4.6567E-02
3.8428E+00	0.0000E+00	3.1870E+00	-4.5380E-02
4.3739E+00	0.0000E+00	-3.1870E+00	-3.6370E-02
4.3739E+00	0.0000E+00	3.1870E+00	-3.5839E-02
4.9051E+00	0.0000E+00	-3.1870E+00	-2.6758E-02
4.9051E+00	0.0000E+00	3.1870E+00	-2.6223E-02

Table D.3-2 Cp measurements on the test wall $3.17T$ from the plane of symmetry, $Re = 4453$.

File E555225.DAT

Cp distributions measured $\pm 3.17T$ from the plane of symmetry

Flow temperature (degrees centigrade) = 26.9

density (kilograms per meter cubed) = 1.097661

viscosity (meters squared per second) = 1.681592E-05

Atmospheric pressure (Pascals) = 94510

Velocity of undisturbed free stream (Uref, in m/s) = 7.647181

Reynolds number based on Uref and chord of wing = 138610.4

Date 11/30/88

X/T	Y/T	Z/T	Cp
-2.0000E+00	0.0000E+00	-3.1870E+00	-1.3544E-02
-2.0000E+00	0.0000E+00	3.1870E+00	-1.6861E-02
-1.4688E+00	0.0000E+00	-3.1870E+00	-2.1712E-02
-1.4688E+00	0.0000E+00	3.1870E+00	-2.3594E-02
-9.3768E-01	0.0000E+00	-3.1870E+00	-3.5099E-02
-9.3768E-01	0.0000E+00	3.1870E+00	-3.6033E-02
-4.0652E-01	0.0000E+00	-3.1870E+00	-5.5452E-02
-4.0652E-01	0.0000E+00	3.1870E+00	-4.9305E-02
1.2465E-01	0.0000E+00	-3.1870E+00	-7.1622E-02
1.2465E-01	0.0000E+00	3.1870E+00	-6.9495E-02
6.5581E-01	0.0000E+00	-3.1870E+00	-8.2747E-02
6.5581E-01	0.0000E+00	3.1870E+00	-8.6808E-02
1.1870E+00	0.0000E+00	-3.1870E+00	-9.3836E-02
1.1870E+00	0.0000E+00	3.1870E+00	-9.9222E-02
1.7181E+00	0.0000E+00	-3.1870E+00	-9.4106E-02
1.7181E+00	0.0000E+00	3.1870E+00	-8.9678E-02
2.2493E+00	0.0000E+00	-3.1870E+00	-9.9556E-02
2.2493E+00	0.0000E+00	3.1870E+00	-9.0581E-02
2.7805E+00	0.0000E+00	-3.1870E+00	-8.5223E-02
2.7805E+00	0.0000E+00	3.1870E+00	-8.3294E-02
3.3116E+00	0.0000E+00	-3.1870E+00	-7.5860E-02
3.3116E+00	0.0000E+00	3.1870E+00	-6.7473E-02
3.8428E+00	0.0000E+00	-3.1870E+00	-6.0754E-02
3.8428E+00	0.0000E+00	3.1870E+00	-6.2022E-02
4.3739E+00	0.0000E+00	-3.1870E+00	-5.3635E-02
4.3739E+00	0.0000E+00	3.1870E+00	-4.4893E-02
4.9051E+00	0.0000E+00	-3.1870E+00	-4.3363E-02
4.9051E+00	0.0000E+00	3.1870E+00	-3.9665E-02

Table D.3-3 Cp measurements on the test wall $3.17T$ from the plane of symmetry, $Re = 2403$.

E. HOT-WIRE ANEMOMETRY

A boundary-layer type single hot-wire probe (TSI model 1218T1.5) was used to measure mean velocity and three components of the Reynolds stress tensor. The probe was operated using a constant temperature anemometer bridge of the type designed by Miller (1976) and modified by Simpson *et al.* (1979). The frequency response of this combination was found to be flat from zero to 12 kHz at an overheat ratio of 1.7. The bridge output was fed through a TSI amplifier (type 1015C) into an analogue-to-digital converter and signal processor (Data Precision Data 6000). This was interfaced to an IBM AT computer enabling calibrations and measurements to be made on line.

The probe was fixed in its traverse gear with the sensor wire in an XZ plane parallel to the test wall. The traverse gear allowed the probe to be rotated about an axis normal to the wind-tunnel floor passing through the middle of the sensor wire. The sensor wire could thus be rotated to any angle of yaw while remaining at the same location.

For the purposes of the analysis below we will define U_s as the component of velocity in the time-mean flow direction, W_s as the component normal to U_s and parallel to the wind-tunnel floor and V_s as the component normal to both U_s and W_s and positive away from the wall.

If it is assumed that time-mean velocities normal to the wind-tunnel floor are negligible with respect to the magnitude of the mean-velocity vector we may write the effective velocity measured by the above hot-wire as

$$U_{eff}^2 = U_s^2(\cos^2\alpha + k^2\sin^2\alpha) + h^2V_s^2 + W_s^2(\sin^2\alpha + k^2\cos^2\alpha) + 2U_sW_s\cos\alpha\sin\alpha(1-k^2)$$

given Jorgensen's (1977) equation. Here α is the angle at which the hot-wire probe is yawed

relative to the mean-velocity vector. k and h are the axial sensitivity and pitch factor of the probe respectively. By ignoring second order terms, the above equation can be decomposed into

$$\overline{U_{eff}} = \sqrt{A} \overline{U_s}$$

and

$$\overline{u_{eff}^2} = A \overline{u_s^2} + (F^2/4A) \overline{w_s^2} + F \overline{u_s w_s}$$

where

$$A = \cos^2 \alpha + k^2 \sin^2 \alpha$$

$$F = \sin 2\alpha (1-k^2)$$

and

$$U_{eff} = \overline{U_{eff}} + u_{eff}$$

$$U_s = \overline{U_s} + u_s$$

$$W_s = w_s$$

So, two measurements of U_{eff} (and $\overline{u_{eff}^2}$), made with the probe at two different angles of yaw (about $\pm 30^\circ$) can be used to determine the magnitude and the relative direction of the mean-velocity vector ($\overline{U_s}$ and α). A third measurement will yield $\overline{u_s^2}$, $\overline{w_s^2}$, $\overline{u_s w_s}$ and redundant values of $\overline{U_s}$ and α .

Velocity profiles have been measured in this manner in a region surrounding the nose of the wing for a nominal approach boundary layer Reynolds number Re_θ of 6700. No data were taken in the region immediately ahead of the wing because instantaneous flow reversals and high velocities normal to the test wall were expected here.

The results are organized according to the nominal spanwise (YZ) plane in which they were measured. Planes are lettered from A to G starting at the most upstream location (see figure E.1-1 for example). Velocities have been resolved into the laboratory fixed coordinate system (U,V,W) described in section A.2.

Table E.1 contains estimates of the uncertainty in these measurements. Some bias

errors not included in these estimates are present in the measurements made closest to the leading edge of the wing because of the high turbulence levels here. Table E-2 shows locations at which turbulence intensities exceeded 30%. Skewing of the mean flow in the boundary layer is a further source of error not included here. At many locations close to the wall measurements show the mean-flow angle changing substantially over distances comparable to the diameter of the prongs of the hot-wire probe. Interference by the prongs is therefore likely. Comparisons between hot-wire and laser anemometer measurements taken in the vicinity of the wing maximum thickness (plane G) show substantial differences which we attribute to this interference.

Value of:	X/T	-1.0?	1.63×10^{-2}	2.83×10^{-2}
	Y/T	6.37×10^{-3}	1.81×10^{-2}	2.20×10^{-1}
	Z/T	0.0	-6.20×10^{-1}	-1.132
	U/U_{ref}	3.58×10^{-1}	4.39×10^{-1}	8.89×10^{-1}
	W/U_{ref}	1.00×10^{-4}	-5.67×10^{-1}	-1.57×10^{-1}
	$\overline{u^2}/U_{ref}^2$	7.17×10^{-3}	2.33×10^{-2}	3.48×10^{-3}
	$-\overline{uw}/U_{ref}^2$	1.03×10^{-5}	-1.46×10^{-2}	-2.61×10^{-4}
Uncertainty in:	U/U_{ref}	5.0×10^{-3}	7.1×10^{-3}	5.2×10^{-3}
	W/U_{ref}	7.2×10^{-3}	6.8×10^{-3}	9.0×10^{-3}
	$\overline{u^2}/U_{ref}^2$	7.1×10^{-5}	4.7×10^{-4}	3.1×10^{-5}
	$\overline{w^2}/U_{ref}^2$	2.8×10^{-4}	4.2×10^{-4}	1.4×10^{-4}
	$-\overline{uw}/U_{ref}^2$	5.8×10^{-5}	4.2×10^{-4}	4.4×10^{-5}

Table E-1 Estimates of uncertainty in single-hot-wire measurements.

Plane	X/T	Y/T	Z/T	Data file name	peak t.i.
C	-0.667	.0038-.0149	0	E48470.RES	45%
C	-0.667	.0028-.0096	-0.25	E47470.RES	40%
C	-0.667	.0028-.0177	-0.131	E49470.RES	44%
D	-0.338	.0025-.0552	-0.25	E50470.RES	39%
E	0.013	.0035-.0092	-0.49	E70470.RES	40%

Table E-2 Locations at which the local turbulence intensity exceeded 30% during hot-wire measurements.

E.1 HOT-WIRE MEASUREMENTS IN PLANES A AND B

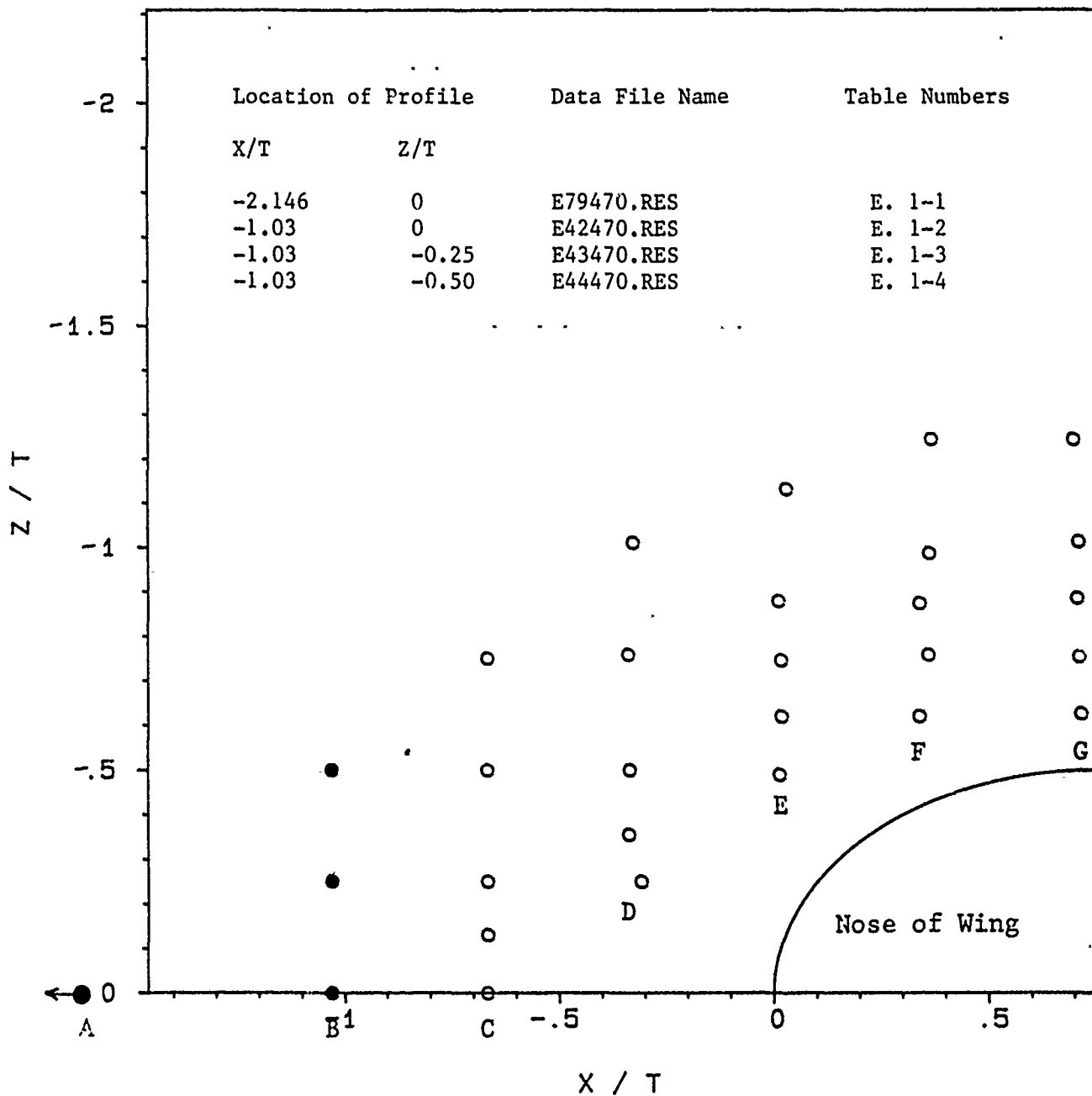


Figure E.1-1 Location of hot-wire profiles measured in planes A and B.

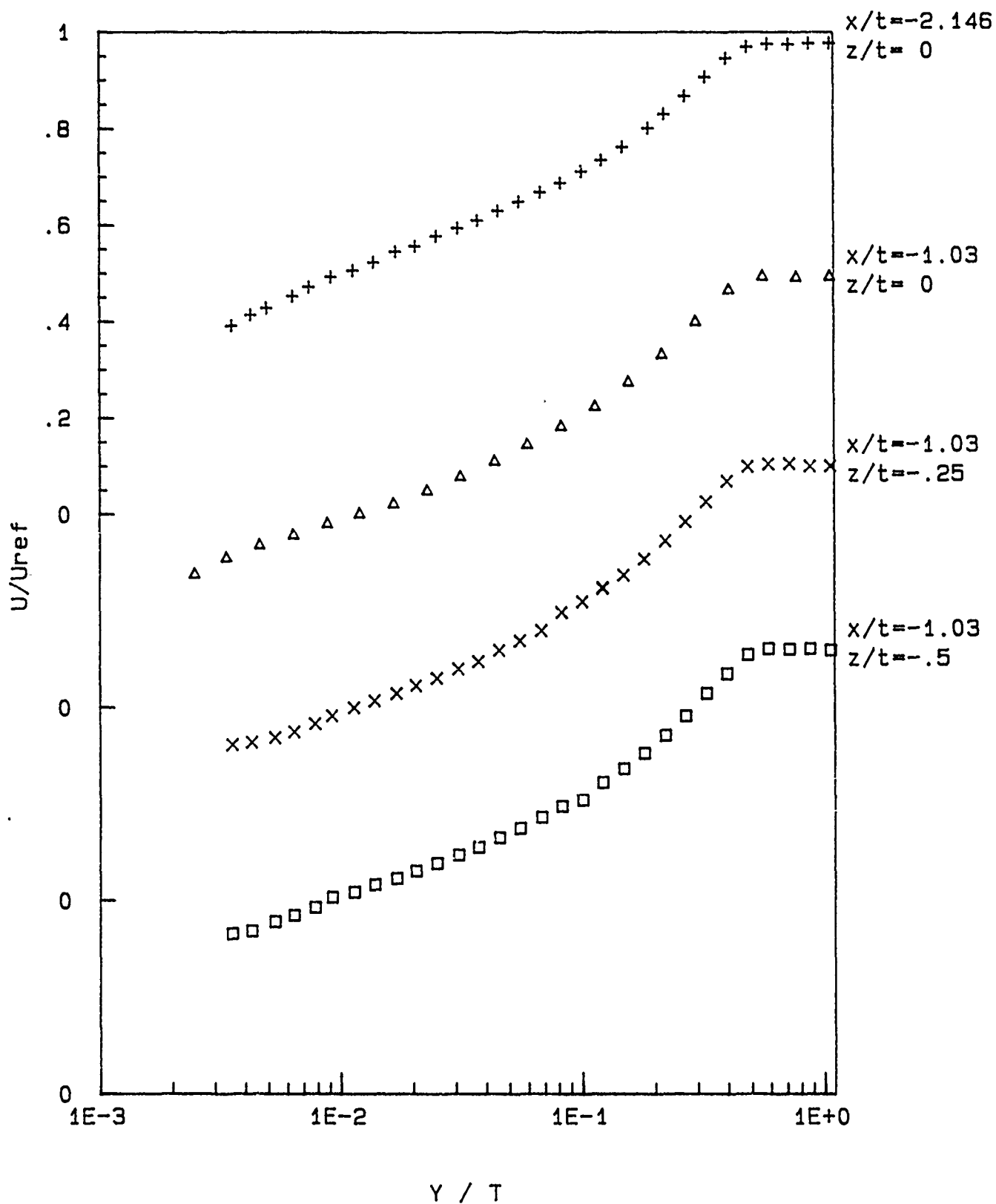


FIGURE E.1-2 Profiles of Mean-Velocity Component U, Planes A and B

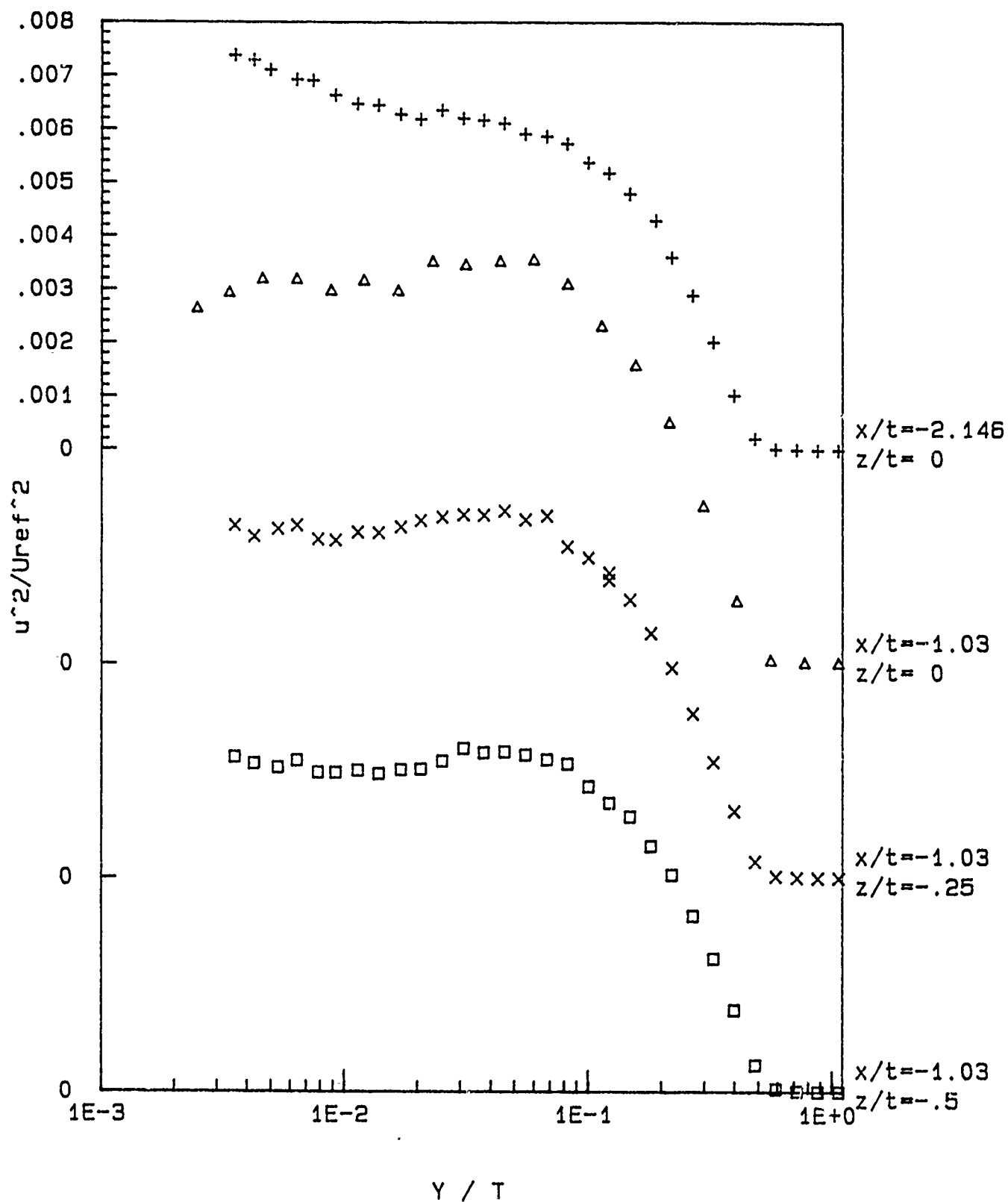


FIGURE E.1-3 Profiles of the U Component of Turbulence Normal Stress, Planes A and B

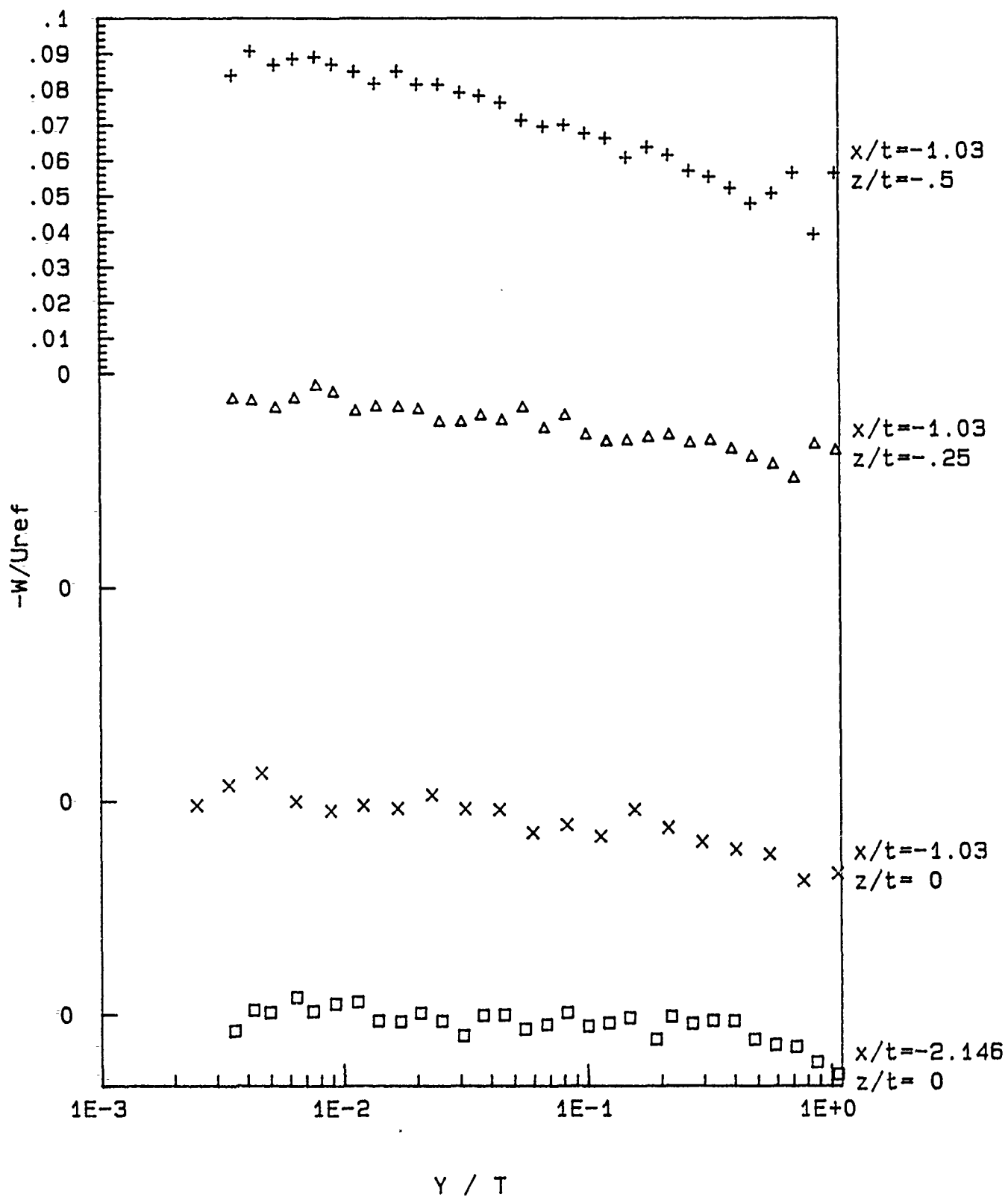


FIGURE E.1-4 Profiles of Mean-Velocity Component W, Planes A and B

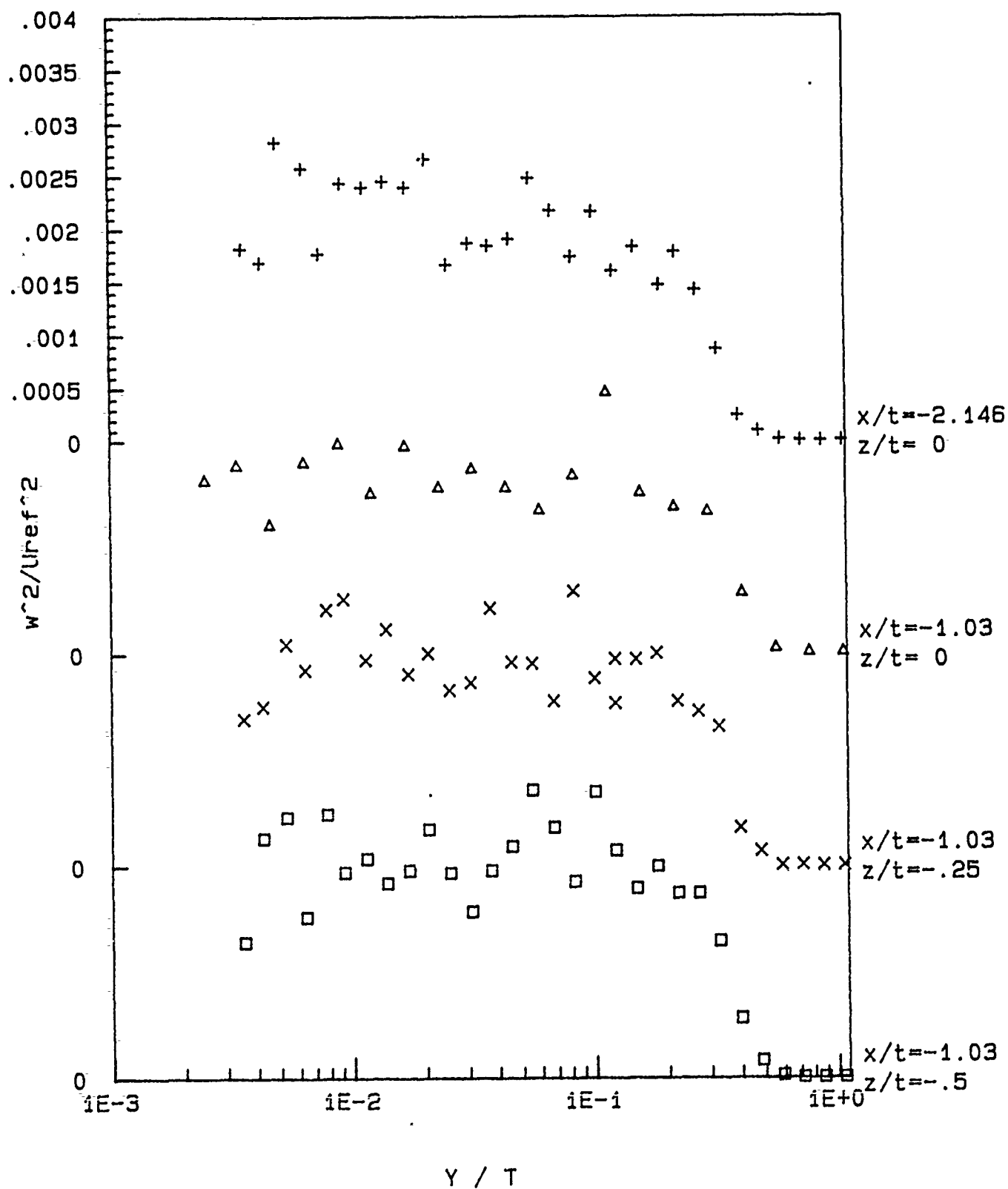


FIGURE E.1-5 Profiles of the W Component of Turbulence Normal Stress, Planes A and B

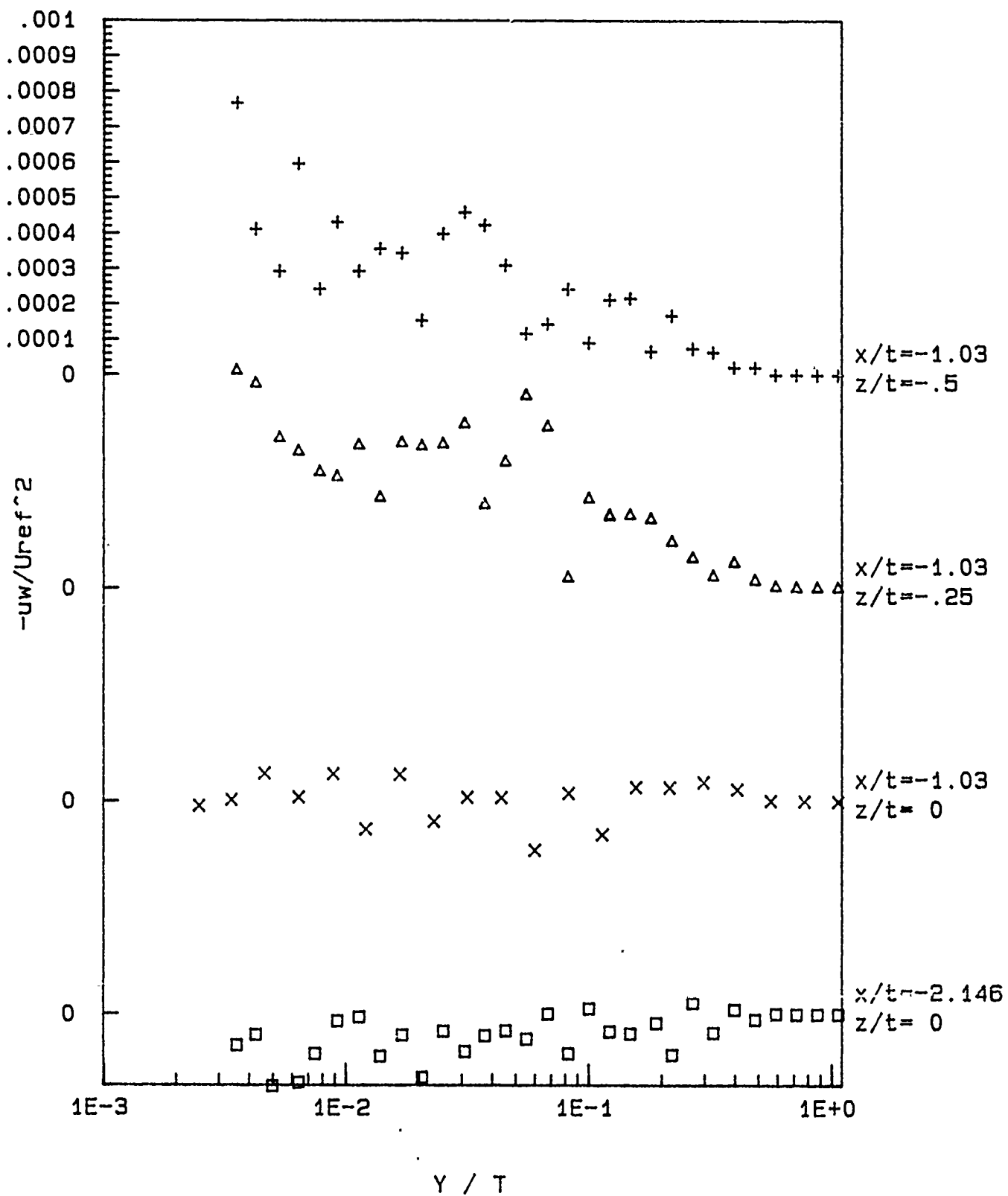


FIGURE E.1-6 Profiles of the UW Reynolds Shear Stress, Planes A and B

File E79470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.38213

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.129559E-03

Estimated momentum thickness Reynolds number = 6612.077

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-2.1460E+00	3.5411E-03	0.0000E+00	3.9103E-01	7.3748E-03	4.5817E-03	1.8169E-03	8.8917E-05
-2.1460E+00	4.2493E-03	0.0000E+00	4.1412E-01	7.2870E-03	-1.2988E-03	1.6878E-03	5.8692E-05
-2.1460E+00	4.9575E-03	0.0000E+00	4.2840E-01	7.1038E-03	-5.9741E-04	2.8227E-03	2.0372E-04
-2.1460E+00	6.3735E-03	0.0000E+00	4.5372E-01	6.9227E-03	-4.8917E-03	2.5737E-03	1.9393E-04
-2.1460E+00	7.4363E-03	0.0000E+00	4.7239E-01	6.9049E-03	-9.2589E-04	1.7653E-03	1.1223E-04
-2.1460E+00	9.2068E-03	0.0000E+00	4.9328E-01	6.6328E-03	-3.0684E-03	2.4354E-03	1.9995E-05
-2.1460E+00	1.1371E-02	0.0000E+00	5.0678E-01	6.4671E-03	-3.6238E-03	2.3957E-03	8.1255E-06
-2.1460E+00	1.3810E-02	0.0000E+00	5.2328E-01	6.4461E-03	1.7471E-03	2.4512E-03	1.1933E-04
-2.1460E+00	1.6997E-02	0.0000E+00	5.4595E-01	6.2735E-03	1.9419E-03	2.3947E-03	5.8909E-05
-2.1460E+00	2.0532E-02	0.0000E+00	5.5712E-01	6.1845E-03	-4.3659E-04	2.6580E-03	1.7917E-04
-2.1460E+00	2.5142E-02	0.0000E+00	5.7937E-01	6.3566E-03	1.7766E-03	1.6612E-03	4.7767E-05
-2.1460E+00	3.0907E-02	0.0000E+00	5.9453E-01	6.2053E-03	5.9594E-03	1.8658E-03	1.0564E-04
-2.1460E+00	3.7181E-02	0.0000E+00	6.1043E-01	6.1652E-03	2.0775E-04	1.8422E-03	6.0499E-05
-2.1460E+00	4.5326E-02	0.0000E+00	6.3060E-01	6.1088E-03	7.8143E-05	1.9056E-03	4.6741E-05
-2.1460E+00	5.5241E-02	0.0000E+00	6.4853E-01	5.9114E-03	4.0454E-03	2.4780E-03	7.0179E-05
-2.1460E+00	6.7635E-02	0.0000E+00	6.6889E-01	5.8682E-03	2.7727E-03	2.1718E-03	-7.5231E-07
-2.1460E+00	8.2153E-02	0.0000E+00	6.8786E-01	5.7309E-03	-5.7026E-04	1.7362E-03	1.1151E-04
-2.1460E+00	1.0021E-01	0.0000E+00	7.1183E-01	5.3792E-03	3.2315E-03	2.1612E-03	-1.5862E-05
-2.1460E+00	1.2181E-01	0.0000E+00	7.3587E-01	5.1794E-03	2.3580E-03	1.6019E-03	4.8930E-05
-2.1460E+00	1.4837E-01	0.0000E+00	7.6283E-01	4.7948E-03	8.6407E-04	1.8281E-03	5.4924E-05
-2.1460E+00	1.8945E-01	0.0000E+00	8.0205E-01	4.2928E-03	6.9028E-03	1.4693E-03	2.4600E-05
-2.1460E+00	2.1990E-01	0.0000E+00	8.3043E-01	3.6081E-03	5.1308E-04	1.7826E-03	1.1454E-04
-2.1460E+00	2.6906E-01	0.0000E+00	8.6820E-01	2.8923E-03	2.5391E-03	1.4210E-03	-3.2840E-05
-2.1460E+00	3.2613E-01	0.0000E+00	9.0733E-01	2.0185E-03	1.6105E-03	8.6434E-04	5.2409E-05
-2.1460E+00	3.9766E-01	0.0000E+00	9.4622E-01	1.0274E-03	1.7737E-03	2.3804E-04	-1.3203E-05
-2.1460E+00	4.8336E-01	0.0000E+00	9.6978E-01	2.1688E-04	6.9058E-03	9.3909E-05	1.5059E-05
-2.1460E+00	5.8853E-01	0.0000E+00	9.7587E-01	2.4084E-05	8.4533E-03	1.3006E-05	-1.3881E-06
-2.1460E+00	7.1671E-01	0.0000E+00	9.7498E-01	7.8117E-06	8.9935E-03	3.4600E-06	5.7991E-07
-2.1460E+00	8.7252E-01	0.0000E+00	9.7695E-01	4.7377E-06	1.3324E-02	1.3053E-06	2.8493E-07
-2.1460E+00	1.0623E+00	0.0000E+00	9.7722E-01	3.5564E-06	1.6759E-02	2.7727E-06	-4.3624E-07

Table E.1-1 Hot-wire velocity measurements at X/T = -2.146, Z/T = 0.

File E42470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.85237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.0484

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.109012E-03

Estimated convective thickness Reynolds number = 6745.331

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-1.0300E+00	2.4788E-03	0.0000E+00	2.7607E-01	6.6251E-03	1.2031E-03	1.6300E-03	1.3847E-05
-1.0300E+00	3.3640E-03	0.0000E+00	3.0995E-01	6.9166E-03	-4.4458E-03	1.7577E-03	-3.4227E-06
-1.0300E+00	4.6034E-03	0.0000E+00	3.3681E-01	7.1728E-03	-7.9467E-03	1.2055E-03	-7.7892E-05
-1.0300E+00	6.3739E-03	0.0000E+00	3.5752E-01	7.1690E-03	1.0014E-04	1.7945E-03	-1.0280E-05
-1.0300E+00	8.8527E-03	0.0000E+00	3.8951E-01	6.9558E-03	2.7625E-03	1.9723E-03	-7.6540E-05
-1.0300E+00	1.2040E-02	0.0000E+00	4.0127E-01	7.1467E-03	1.1666E-03	1.5026E-03	7.9644E-05
-1.0300E+00	1.6643E-02	0.0000E+00	4.2183E-01	6.9499E-03	2.0569E-03	1.9496E-03	-7.5114E-05
-1.0300E+00	2.3017E-02	0.0000E+00	4.4932E-01	7.5037E-03	-1.7689E-03	1.5572E-03	5.7454E-05
-1.0300E+00	3.1516E-02	0.0000E+00	4.7831E-01	7.4443E-03	2.2152E-03	1.7339E-03	-1.0857E-05
-1.0300E+00	4.3555E-02	0.0000E+00	5.0996E-01	7.5065E-03	2.4098E-03	1.5570E-03	-9.9134E-06
-1.0300E+00	5.9844E-02	0.0000E+00	5.4448E-01	7.5358E-03	8.9015E-03	1.3434E-03	1.3842E-04
-1.0300E+00	8.2507E-02	0.0000E+00	5.8216E-01	7.0795E-03	6.6718E-03	1.6718E-03	-2.2155E-05
-1.0300E+00	1.1367E-01	0.0000E+00	6.2336E-01	6.2923E-03	9.9097E-03	2.4536E-03	9.3941E-05
-1.0300E+00	1.5652E-01	0.0000E+00	6.7415E-01	5.5642E-03	2.3091E-03	1.5070E-03	-4.0239E-05
-1.0300E+00	2.1530E-01	0.0000E+00	7.3121E-01	4.4919E-03	7.4398E-03	1.3795E-03	-3.9403E-05
-1.0300E+00	2.9639E-01	0.0000E+00	7.9944E-01	2.9312E-03	1.1411E-02	1.3293E-03	-5.3904E-05
-1.0300E+00	4.0793E-01	0.0000E+00	8.6554E-01	1.1572E-03	1.7557E-02	5.6047E-04	-3.3812E-05
-1.0300E+00	5.6126E-01	0.0000E+00	9.9353E-01	5.3711E-05	1.4948E-02	4.1533E-05	-1.5229E-06
-1.0300E+00	7.7195E-01	0.0000E+00	8.9115E-01	1.0126E-05	2.2349E-02	4.1019E-06	-5.3553E-07
-1.0300E+00	1.0623E+00	0.0000E+00	8.9267E-01	3.8951E-06	2.0323E-02	1.3394E-06	1.3929E-02

Table E.1-2 Hot-wire velocity measurements at X/T = -1.03, Z/T = 0.

File E43470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.02741

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.10965E-03

Estimated momentum thickness Reynolds number = 6741.143

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-1.0300E+00	3.5411E-03	-2.5000E-01	3.2346E-01	6.5822E-03	-5.2774E-02	1.3864E-03	-6.1130E-04
-1.0300E+00	4.2493E-03	-2.5000E-01	3.2843E-01	6.3784E-03	-5.2304E-02	1.5038E-03	-5.7523E-04
-1.0300E+00	5.3116E-03	-2.5000E-01	3.3836E-01	6.5201E-03	-5.0173E-02	2.0904E-03	-4.2102E-04
-1.0300E+00	6.3739E-03	-2.5000E-01	3.5029E-01	6.5899E-03	-5.2914E-02	1.8483E-03	-3.9318E-04
-1.0300E+00	7.7904E-03	-2.5000E-01	3.6715E-01	6.3274E-03	-5.6479E-02	2.4181E-03	-3.2491E-04
-1.0300E+00	9.2068E-03	-2.5000E-01	3.8335E-01	6.3109E-03	-5.4605E-02	2.5187E-03	-3.1213E-04
-1.0300E+00	1.1331E-02	-2.5000E-01	4.0085E-01	6.4594E-03	-4.9345E-02	1.9420E-03	-4.0115E-04
-1.0300E+00	1.3810E-02	-2.5000E-01	4.1486E-01	6.4454E-03	-5.0574E-02	2.2333E-03	-2.5337E-04
-1.0300E+00	1.6997E-02	-2.5000E-01	4.3013E-01	6.5584E-03	-5.0442E-02	1.8079E-03	-4.0788E-04
-1.0300E+00	2.0538E-02	-2.5000E-01	4.4651E-01	6.6808E-03	-4.9825E-02	2.0026E-03	-3.9833E-04
-1.0300E+00	2.5142E-02	-2.5000E-01	4.6206E-01	6.7481E-03	-4.6301E-02	1.6540E-03	-4.0455E-04
-1.0300E+00	3.0807E-02	-2.5000E-01	4.8091E-01	6.7897E-03	-4.6284E-02	1.7275E-03	-4.6164E-04
-1.0300E+00	3.7181E-02	-2.5000E-01	4.9639E-01	6.7804E-03	-4.8118E-02	2.4298E-03	-2.3365E-04
-1.0300E+00	4.5326E-02	-2.5000E-01	5.1993E-01	6.8618E-03	-4.6660E-02	1.9208E-03	-3.5462E-04
-1.0300E+00	5.5241E-02	-2.5000E-01	5.3945E-01	6.6971E-03	-5.0352E-02	1.9058E-03	-5.4202E-04
-1.0300E+00	6.7635E-02	-2.5000E-01	5.6045E-01	6.7697E-03	-4.4450E-02	1.5516E-03	-4.5285E-04
-1.0300E+00	8.2153E-02	-2.5000E-01	5.9809E-01	6.1935E-03	-4.8071E-02	2.5882E-03	-2.8446E-05
-1.0300E+00	1.0021E-01	-2.5000E-01	6.2021E-01	5.9877E-03	-4.2635E-02	1.7641E-03	-2.5148E-04
-1.0300E+00	1.2181E-01	-2.5000E-01	6.4934E-01	5.5659E-03	-4.0637E-02	1.9503E-03	-2.0458E-04
-1.0300E+00	1.2181E-01	-2.5000E-01	6.4742E-01	5.7053E-03	-4.0675E-02	1.5305E-03	-2.0123E-04
-1.0300E+00	1.4837E-01	-2.5000E-01	6.7508E-01	5.2026E-03	-4.1015E-02	1.9464E-03	-2.0500E-04
-1.0300E+00	1.8059E-01	-2.5000E-01	7.0866E-01	4.5763E-03	-4.1900E-02	2.0039E-03	-1.9392E-04
-1.0300E+00	2.1970E-01	-2.5000E-01	7.4623E-01	3.9322E-03	-4.2566E-02	1.5491E-03	-1.3010E-04
-1.0300E+00	2.6806E-01	-2.5000E-01	7.8606E-01	3.0705E-03	-4.0314E-02	1.4509E-03	-8.4042E-05
-1.0300E+00	3.2613E-01	-2.5000E-01	8.2701E-01	2.1694E-03	-4.1042E-02	1.3091E-03	-3.2847E-05
-1.0300E+00	3.9731E-01	-2.5000E-01	8.6988E-01	1.2536E-03	-3.8562E-02	3.5566E-04	-7.1088E-05
-1.0300E+00	4.8336E-01	-2.5000E-01	9.9972E-01	3.1019E-04	-3.6470E-02	1.3772E-04	-2.0867E-05
-1.0300E+00	5.8853E-01	-2.5000E-01	9.0491E-01	3.8889E-05	-3.4289E-02	2.5647E-06	-3.1039E-06
-1.0300E+00	7.1671E-01	-2.5000E-01	9.0542E-01	1.2298E-05	-3.0439E-02	7.3902E-06	-3.4295E-08
-1.0300E+00	8.7252E-01	-2.5000E-01	9.0032E-01	8.3709E-06	-3.9997E-02	5.0818E-06	2.7796E-07
-1.0300E+00	1.0623E+00	-2.5000E-01	9.0098E-01	7.0860E-06	-3.8274E-02	2.6014E-06	-7.5366E-08

Table E.1-3 Hot-wire velocity measurements at X/T = -1.03, Z/T = -.25.

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Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.99069

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.110767E-03

Estimated momentum thickness Reynolds number = 6733.815

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-1.0300E+00	3.5411E-03	-5.0000E-01	3.3183E-01	6.2473E-03	-8.3998E-02	1.2846E-03	-7.6681E-04
-1.0300E+00	4.2493E-03	-5.0000E-01	3.3772E-01	6.1309E-03	-9.0751E-02	2.2610E-03	-4.1114E-04
-1.0300E+00	5.3116E-03	-5.0000E-01	3.5700E-01	6.0566E-03	-8.6802E-02	2.4585E-03	-2.9113E-04
-1.0300E+00	6.3739E-03	-5.0000E-01	3.7039E-01	6.1888E-03	-8.8560E-02	1.5166E-03	-5.9554E-04
-1.0300E+00	7.7904E-03	-5.0000E-01	3.8612E-01	5.9625E-03	-8.9058E-02	2.4884E-03	-2.4157E-04
-1.0300E+00	9.2068E-03	-5.0000E-01	4.0736E-01	5.9636E-03	-8.7011E-02	1.9366E-03	-4.3130E-04
-1.0300E+00	1.1331E-02	-5.0000E-01	4.1811E-01	6.0018E-03	-8.4914E-02	2.0678E-03	-2.9234E-04
-1.0300E+00	1.3810E-02	-5.0000E-01	4.3343E-01	5.9399E-03	-8.1576E-02	1.8549E-03	-3.5562E-04
-1.0300E+00	1.6597E-02	-5.0000E-01	4.4651E-01	6.0155E-03	-8.5030E-02	1.9524E-03	-3.4355E-04
-1.0300E+00	2.0538E-02	-5.0000E-01	4.6200E-01	6.0258E-03	-8.1356E-02	2.3416E-03	-1.5307E-04
-1.0300E+00	2.5142E-02	-5.0000E-01	4.7806E-01	6.1790E-03	-8.1417E-02	1.9319E-03	-3.9853E-04
-1.0300E+00	3.0807E-02	-5.0000E-01	4.9491E-01	6.4182E-03	-7.9014E-02	1.5683E-03	-4.5905E-04
-1.0300E+00	3.7181E-02	-5.0000E-01	5.1117E-01	6.3326E-03	-7.8176E-02	1.9534E-03	-4.2287E-04
-1.0300E+00	4.5326E-02	-5.0000E-01	5.3115E-01	6.3548E-03	-7.6251E-02	2.1824E-03	-3.0908E-04
-1.0300E+00	5.5241E-02	-5.0000E-01	5.5040E-01	6.2942E-03	-7.1261E-02	2.7106E-03	-1.1645E-04
-1.0300E+00	6.7635E-02	-5.0000E-01	5.7345E-01	6.2052E-03	-6.9502E-02	2.3601E-03	-1.4263E-04
-1.0300E+00	8.2153E-02	-5.0000E-01	5.9590E-01	6.1270E-03	-6.9918E-02	1.8487E-03	-2.4219E-04
-1.0300E+00	1.0021E-01	-5.0000E-01	6.0905E-01	5.7055E-03	-6.7596E-02	2.6932E-03	-9.0694E-05
-1.0300E+00	1.2181E-01	-5.0000E-01	6.4526E-01	5.3952E-03	-6.6193E-02	2.1423E-03	-2.1226E-04
-1.0300E+00	1.4837E-01	-5.0000E-01	6.7350E-01	5.1422E-03	-6.0814E-02	1.7842E-03	-2.1678E-04
-1.0300E+00	1.8059E-01	-5.0000E-01	7.0566E-01	4.5880E-03	-6.3707E-02	1.9910E-03	-6.6525E-05
-1.0300E+00	2.1990E-01	-5.0000E-01	7.4287E-01	4.0536E-03	-6.1402E-02	1.7390E-03	-1.6825E-04
-1.0300E+00	2.6806E-01	-5.0000E-01	7.8322E-01	3.2863E-03	-5.6950E-02	1.7388E-03	-7.4596E-05
-1.0300E+00	3.2613E-01	-5.0000E-01	8.3004E-01	2.4915E-03	-5.5376E-02	1.2876E-03	-6.4021E-05
-1.0300E+00	3.9731E-01	-5.0000E-01	8.7106E-01	1.5306E-03	-5.2109E-02	5.6033E-04	-2.1626E-05
-1.0300E+00	4.8371E-01	-5.0000E-01	9.1031E-01	4.9884E-04	-4.7837E-02	1.6176E-04	-2.1569E-05
-1.0300E+00	5.8853E-01	-5.0000E-01	9.2284E-01	5.8516E-05	-5.0680E-02	2.2868E-05	-8.1541E-07
-1.0300E+00	7.1671E-01	-5.0000E-01	9.2091E-01	1.4521E-05	-5.6519E-02	5.4421E-06	-2.4143E-07
-1.0300E+00	8.7252E-01	-5.0000E-01	9.2258E-01	9.1229E-06	-3.9203E-02	6.0842E-06	1.1624E-07
-1.0300E+00	1.0623E+00	-5.0000E-01	9.1920E-01	6.7813E-06	-5.6446E-02	3.7858E-06	-3.6100E-07

Table E.1-4 Hot-wire velocity measurements at X/T = -1.03, Z/T = -.50.

E.2 HOT-WIRE MEASUREMENTS IN PLANE C

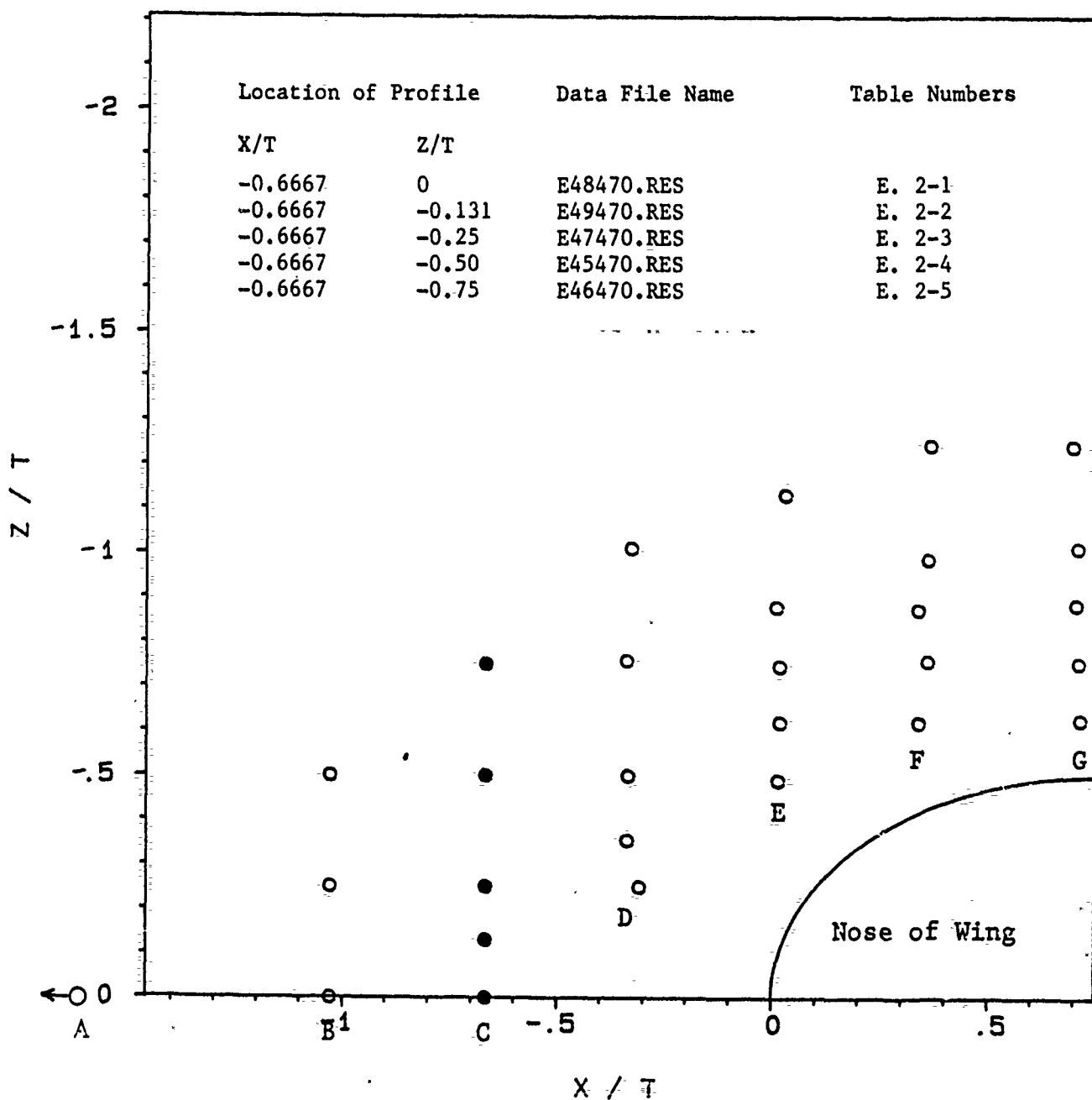


Figure E.2-1 Location of hot-wire profiles measured in plane C.

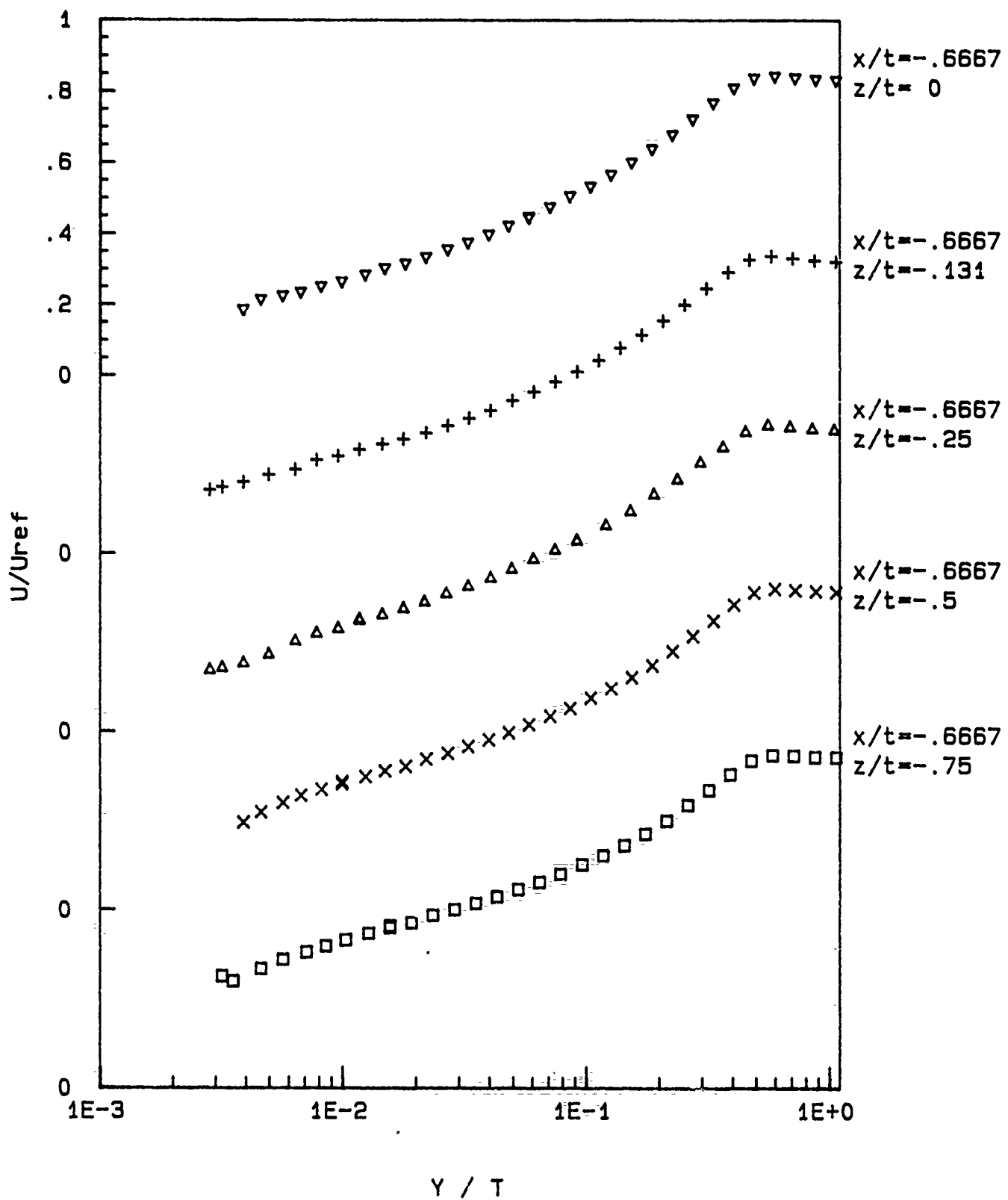


FIGURE E.2-2 Profiles of Mean-Velocity Component U, Plane C

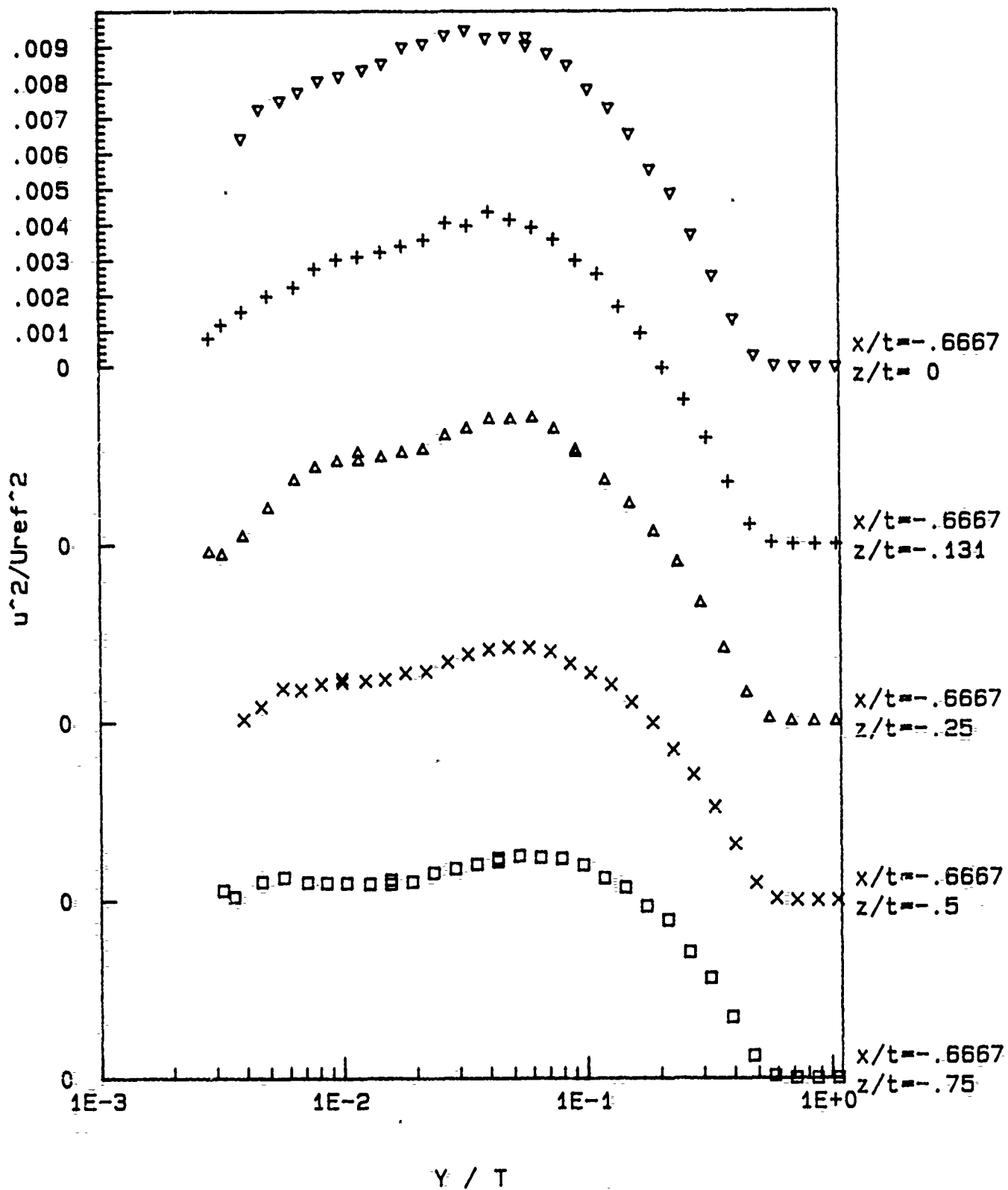


FIGURE E.2-3 Profiles of the U Component of Turbulence Normal Stress, Plane C

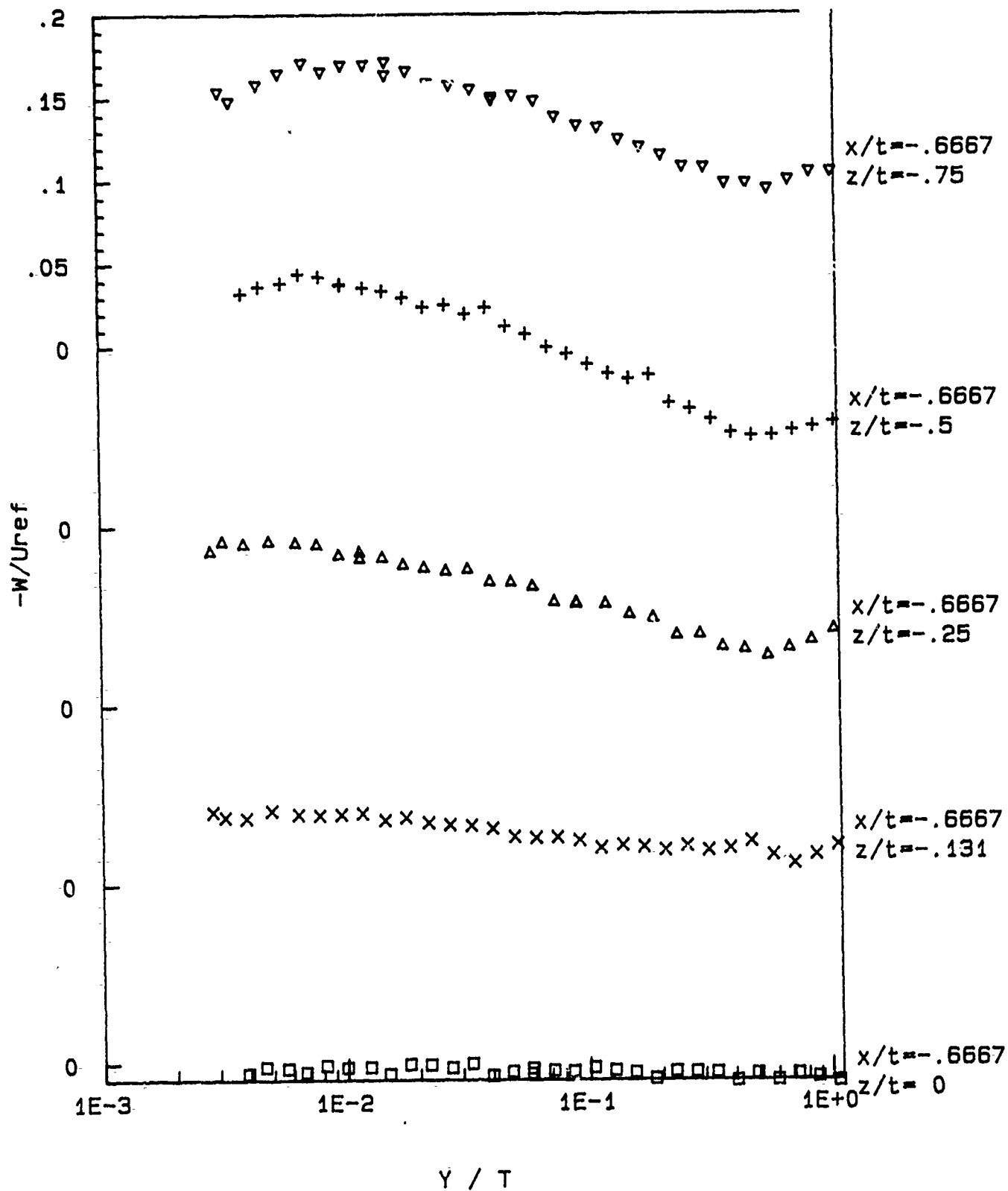


FIGURE E.2-4 Profiles of Mean-Velocity Component W, Plane C

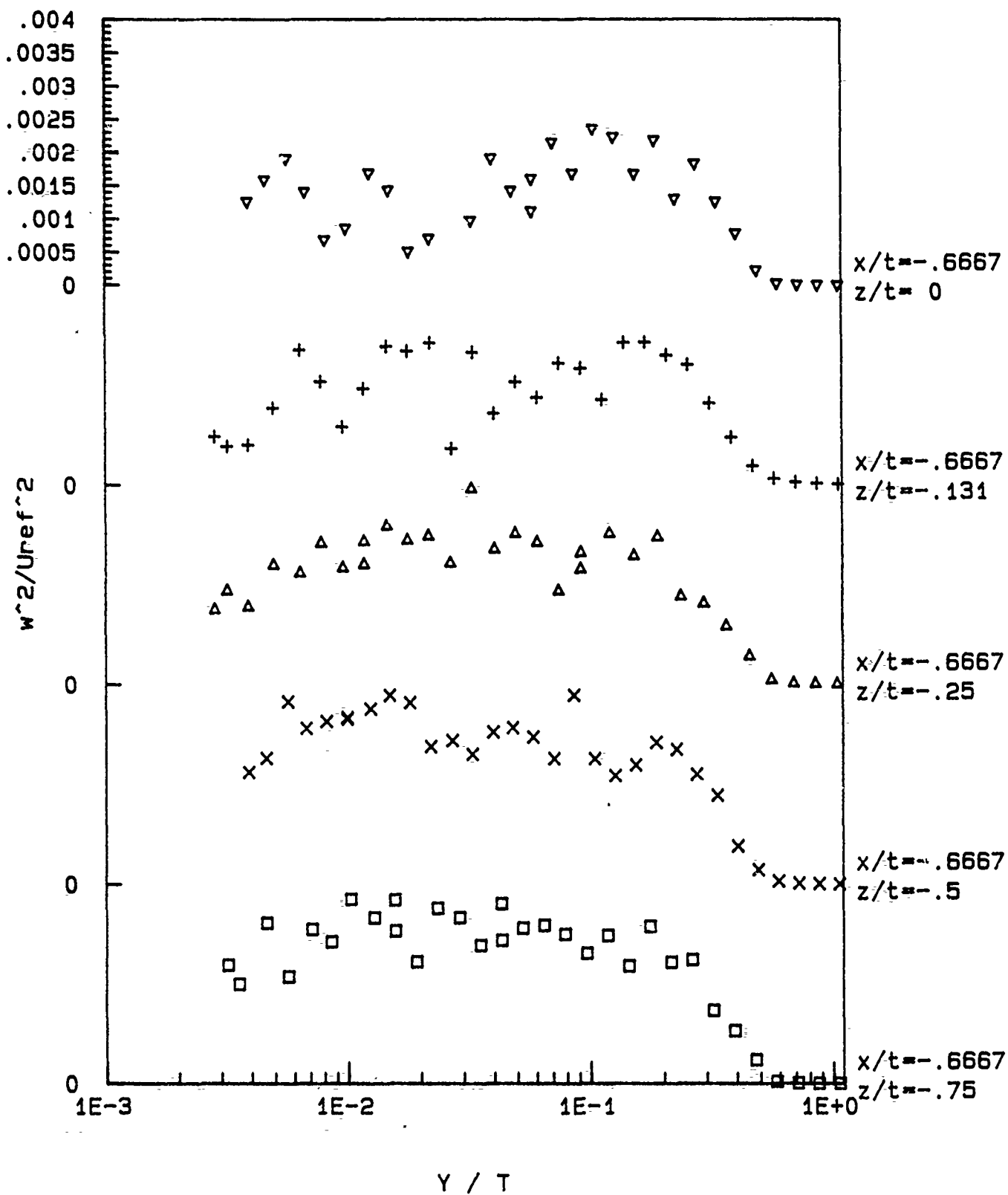


FIGURE E.2-5 Profiles of the W Component of Turbulence Normal Stress, Plane C

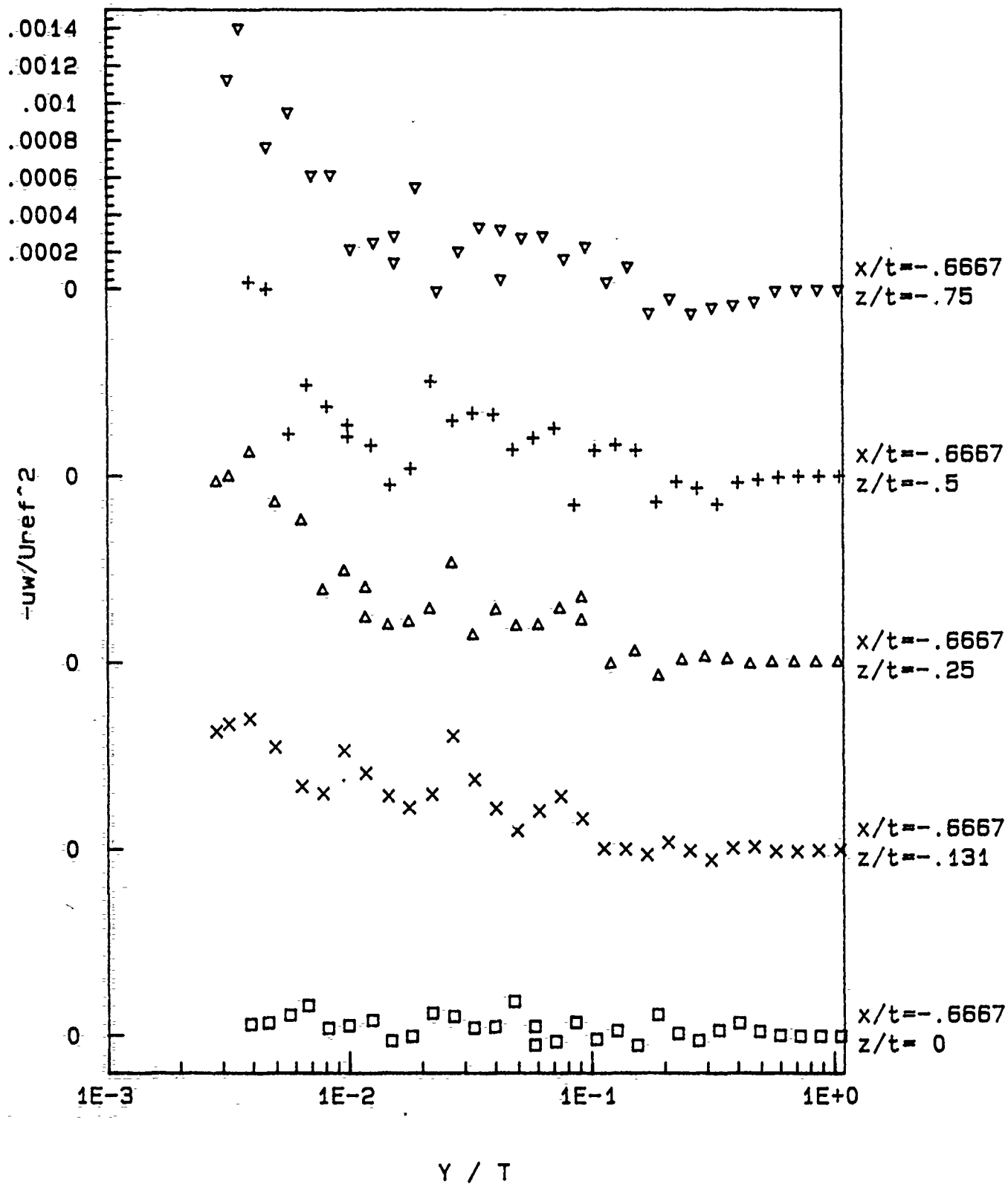


FIGURE E.2-6 Profiles of the UW Reynolds Shear Stress, Plane C

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Velocity measurements obtained using the single-sensor hot wire probe
 Flow temperature (degrees centigrade) = 23
 density (kilograms per meter cubed) = 1.106
 viscosity (meters squared per second) = 1.65237E-05
 Atmospheric pressure (Pascals) = 94000
 Velocity of undisturbed free stream (Uref, in m/s) = 27.42035
 Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.097803E-03
 Estimated momentum thickness Reynolds number = 6819.435

X/T	V/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-6.6670E-01	3.2732E-03	0.0000E+00	1.8779E-01	6.4549E-03	6.1905E-03	1.2674E-03	-6.1682E-05
-6.6670E-01	4.6034E-03	0.0000E+00	2.1567E-01	7.2697E-03	2.1179E-03	1.5931E-03	-6.9424E-05
-6.6670E-01	5.6657E-03	0.0000E+00	2.2613E-01	7.5122E-03	3.1935E-03	1.9144E-03	-1.1079E-04
-6.6670E-01	6.7280E-03	0.0000E+00	2.3720E-01	7.7481E-03	5.2044E-03	1.4128E-03	-1.6304E-04
-6.6670E-01	8.1445E-03	0.0000E+00	2.5306E-01	8.0684E-03	1.2776E-03	6.8938E-04	-3.9884E-05
-6.6670E-01	9.9150E-03	0.0000E+00	2.6720E-01	8.1917E-03	2.5835E-03	8.6141E-04	-5.5592E-05
-6.6670E-01	1.2394E-02	0.0000E+00	2.8643E-01	8.3667E-03	2.1703E-03	1.6945E-03	-8.3508E-05
-6.6670E-01	1.4873E-02	0.0000E+00	3.0463E-01	8.5433E-03	6.5890E-03	1.4362E-03	2.7500E-05
-6.6670E-01	1.8059E-02	0.0000E+00	3.1785E-01	9.0122E-03	5.8288E-04	5.1334E-04	3.1014E-06
-6.6670E-01	2.1955E-02	0.0000E+00	3.3598E-01	9.1026E-03	9.6931E-04	7.0959E-04	-1.2230E-04
-6.6670E-01	2.6912E-02	0.0000E+00	3.5723E-01	9.3388E-03	2.7255E-03	-1.0411E-04	-1.0411E-04
-6.6670E-01	3.2578E-02	0.0000E+00	3.7726E-01	9.4812E-03	1.6245E-04	9.8279E-04	-4.3205E-05
-6.6670E-01	3.9640E-02	0.0000E+00	3.9985E-01	9.2531E-03	7.3976E-03	1.9169E-03	-4.8783E-05
-6.6670E-01	4.7805E-02	0.0000E+00	4.2417E-01	9.2805E-03	5.2048E-03	1.4297E-03	-1.8440E-04
-6.6670E-01	5.8074E-02	0.0000E+00	4.4742E-01	9.0471E-03	3.2199E-03	1.6069E-03	-5.0560E-05
-6.6670E-01	5.8074E-02	0.0000E+00	4.4915E-01	9.2788E-03	6.3127E-03	1.1212E-03	-5.0118E-05
-6.6670E-01	7.0822E-02	0.0000E+00	4.7712E-01	8.8227E-03	4.5879E-03	2.1582E-03	3.1407E-05
-6.6670E-01	8.5694E-02	0.0000E+00	5.0777E-01	8.4966E-03	4.9982E-03	1.6918E-03	-7.2397E-05
-6.6670E-01	1.0411E-01	0.0000E+00	5.3509E-01	7.8269E-03	2.7118E-03	2.3600E-03	1.7985E-05
-6.6670E-01	1.2642E-01	0.0000E+00	5.6765E-01	7.2994E-03	4.5918E-03	2.2358E-03	-2.6225E-05
-6.6670E-01	1.5333E-01	0.0000E+00	6.0204E-01	6.5745E-03	5.8208E-03	1.6815E-03	5.2714E-05
-6.6670E-01	1.8626E-01	0.0000E+00	6.4034E-01	5.5553E-03	9.3817E-03	2.1918E-03	-1.1377E-04
-6.6670E-01	2.2592E-01	0.0000E+00	6.8080E-01	4.8860E-03	5.0326E-03	1.3054E-03	-1.2882E-05
-6.6670E-01	2.7408E-01	0.0000E+00	7.2478E-01	3.7230E-03	5.2964E-03	1.8366E-03	2.5084E-05
-6.6670E-01	3.3286E-01	0.0000E+00	7.7038E-01	2.5640E-03	5.7901E-03	1.2638E-03	-2.9216E-05
-6.6670E-01	4.0368E-01	0.0000E+00	8.1170E-01	1.3401E-03	1.0600E-02	7.8688E-04	-6.9471E-05
-6.6670E-01	4.9009E-01	0.0000E+00	8.3935E-01	3.2159E-04	6.3282E-03	2.2611E-04	-2.3507E-05
-6.6670E-01	5.9455E-01	0.0000E+00	8.4456E-01	4.1268E-05	1.0472E-02	2.7845E-05	-2.2593E-06
-6.6670E-01	7.2132E-01	0.0000E+00	8.3979E-01	1.2882E-05	6.4356E-03	9.1074E-06	5.0886E-07
-6.6670E-01	8.7535E-01	0.0000E+00	8.3604E-01	6.7380E-06	8.4901E-03	6.0266E-06	5.0831E-07
-6.6670E-01	1.0623E+00	0.0000E+00	8.3349E-01	5.7971E-06	1.1132E-02	4.4682E-06	9.1291E-07

Table E.2-1 Hot-wire velocity measurements at X/T = -.667, Z/T = 0.

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Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.41614

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097929E-03

Estimated momentum thickness Reynolds number = 6818.597

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-6.6670E-01	2.8329E-03	-1.3100E-01	1.7999E-01	5.8103E-03	-4.3787E-02	7.2719E-04	-6.3058E-04
-6.6670E-01	3.1870E-03	-1.3100E-01	1.8791E-01	6.1830E-03	-4.0682E-02	5.7900E-04	-6.6977E-04
-6.6670E-01	3.8952E-03	-1.3100E-01	2.0194E-01	6.5491E-03	-3.9930E-02	5.9994E-04	-6.9790E-04
-6.6670E-01	4.9575E-03	-1.3100E-01	2.2263E-01	6.9926E-03	-4.4575E-02	1.1582E-03	-5.4643E-04
-6.6670E-01	6.3739E-03	-1.3100E-01	2.3732E-01	7.2353E-03	-4.2144E-02	2.0274E-03	-3.3517E-04
-6.6670E-01	7.7904E-03	-1.3100E-01	2.6427E-01	7.7635E-03	-4.1576E-02	1.5509E-03	-2.9659E-04
-6.6670E-01	9.5609E-03	-1.3100E-01	2.7505E-01	8.0239E-03	-4.2185E-02	8.7114E-04	-5.2752E-04
-6.6670E-01	1.1686E-02	-1.3100E-01	2.9323E-01	8.1006E-03	-4.2858E-02	1.4463E-03	-4.0762E-04
-6.6670E-01	1.4518E-02	-1.3100E-01	3.0871E-01	8.2233E-03	-3.8533E-02	2.0804E-03	-2.8347E-04
-6.6670E-01	1.7705E-02	-1.3100E-01	3.2326E-01	8.3900E-03	-4.0254E-02	2.0096E-03	-2.2124E-04
-6.6670E-01	2.1955E-02	-1.3100E-01	3.4059E-01	8.5667E-03	-3.7028E-02	2.1345E-03	-2.9383E-04
-6.6670E-01	2.6912E-02	-1.3100E-01	3.6037E-01	9.0509E-03	-3.5759E-02	5.4419E-04	-6.0618E-04
-6.6670E-01	3.2932E-02	-1.3100E-01	3.8210E-01	8.9717E-03	-3.5243E-02	1.9933E-03	-3.7271E-04
-6.6670E-01	4.0368E-02	-1.3100E-01	4.0362E-01	9.3618E-03	-3.5552E-02	1.0712E-03	-2.1676E-04
-6.6670E-01	4.9575E-02	-1.3100E-01	4.3194E-01	9.1414E-03	-2.8351E-02	1.5482E-03	-9.9233E-05
-6.6670E-01	6.0907E-02	-1.3100E-01	4.5618E-01	8.9157E-03	-2.7720E-02	1.3138E-03	-2.0432E-04
-6.6670E-01	7.4717E-02	-1.3100E-01	4.8469E-01	8.5756E-03	-2.8049E-02	1.8321E-03	-2.8192E-04
-6.6670E-01	9.1714E-02	-1.3100E-01	5.1238E-01	7.9846E-03	-2.6140E-02	1.7500E-03	-1.5363E-04
-6.6670E-01	1.1261E-01	-1.3100E-01	5.4467E-01	7.5972E-03	-2.1728E-02	1.2769E-03	-2.5573E-06
-6.6670E-01	1.3810E-01	-1.3100E-01	5.7964E-01	6.6660E-03	-2.3192E-02	2.1402E-03	1.6510E-06
-6.6670E-01	1.6926E-01	-1.3100E-01	6.1648E-01	5.9277E-03	-2.2250E-02	2.1456E-03	3.0980E-05
-6.6670E-01	2.0751E-01	-1.3100E-01	6.5686E-01	4.9574E-03	-2.0356E-02	1.9515E-03	-3.7267E-05
-6.6670E-01	2.5460E-01	-1.3100E-01	7.0047E-01	4.0556E-03	-2.2766E-02	1.8065E-03	8.2661E-06
-6.6670E-01	3.1232E-01	-1.3100E-01	7.4671E-01	2.9833E-03	-2.0048E-02	1.2248E-03	5.9305E-05
-6.6670E-01	3.8314E-01	-1.3100E-01	7.9286E-01	1.7467E-03	-2.1457E-02	7.1158E-04	-6.2193E-06
-6.6670E-01	4.6955E-01	-1.3100E-01	8.2809E-01	5.5274E-04	-2.5493E-02	2.8129E-04	-1.2942E-05
-6.6670E-01	5.7613E-01	-1.3100E-01	8.3735E-01	5.5358E-05	-1.7104E-02	9.0097E-05	1.1779E-05
-6.6670E-01	7.0644E-01	-1.3100E-01	8.3141E-01	1.2820E-05	-1.2194E-02	3.8704E-05	1.1814E-05
-6.6670E-01	8.6615E-01	-1.3100E-01	8.2557E-01	6.1544E-06	-1.7308E-02	2.3545E-05	5.8269E-06
-6.6670E-01	1.0623E+00	-1.3100E-01	8.2183E-01	4.6412E-06	-2.3030E-02	1.2918E-05	3.2514E-06

Table E.2-2 Hot-wire velocity measurements at X/T = -.667, Z/T = -.131.

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Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.29745

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.101486E-03

Estimated momentum thickness Reynolds number = 6794.97

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-6.6670E-01	2.8329E-03	-2.5000E-01	1.7312E-01	4.7741E-03	-9.2404E-02	1.1175E-03	-9.6455E-04
-6.6670E-01	3.1870E-03	-2.5000E-01	1.7902E-01	4.7021E-03	-9.8224E-02	1.4013E-03	-9.9373E-04
-6.6670E-01	3.8952E-03	-2.5000E-01	1.9254E-01	5.2244E-03	-9.6590E-02	1.1584E-03	-1.1229E-03
-6.6670E-01	4.9575E-03	-2.5000E-01	2.1710E-01	6.0142E-03	-9.8490E-02	1.7893E-03	-8.5418E-04
-6.6670E-01	6.3739E-03	-2.5000E-01	2.5485E-01	6.8015E-03	-9.7456E-02	1.6690E-03	-7.5695E-04
-6.6670E-01	7.7904E-03	-2.5000E-01	2.7655E-01	7.1602E-03	-9.6255E-02	2.1184E-03	-3.8277E-04
-6.6670E-01	9.5609E-03	-2.5000E-01	2.9013E-01	7.3285E-03	-9.0110E-02	1.7475E-03	-4.8633E-04
-6.6670E-01	1.1686E-02	-2.5000E-01	3.1624E-01	7.5772E-03	-9.1805E-02	2.1447E-03	-2.3675E-04
-6.6670E-01	1.1686E-02	-2.5000E-01	3.1251E-01	7.3496E-03	-8.8014E-02	1.7957E-03	-3.9731E-04
-6.6670E-01	1.4518E-02	-2.5000E-01	3.2850E-01	7.4418E-03	-8.8389E-02	2.3753E-03	-1.9612E-04
-6.6670E-01	1.7705E-02	-2.5000E-01	3.4628E-01	7.5735E-03	-8.4119E-02	2.1603E-03	-2.1283E-04
-6.6670E-01	2.1601E-02	-2.5000E-01	3.6420E-01	7.6581E-03	-8.2190E-02	2.2234E-03	-2.8262E-04
-6.6670E-01	2.6558E-02	-2.5000E-01	3.8837E-01	8.0525E-03	-8.0216E-02	1.8174E-03	-5.2853E-04
-6.6670E-01	3.2578E-02	-2.5000E-01	4.0870E-01	8.2495E-03	-8.1317E-02	2.9370E-03	-1.4372E-04
-6.6670E-01	4.0368E-02	-2.5000E-01	4.3203E-01	8.5109E-03	-7.3805E-02	2.0253E-03	-2.7690E-04
-6.6670E-01	4.9221E-02	-2.5000E-01	4.5714E-01	8.5035E-03	-7.3329E-02	2.2611E-03	-1.9105E-04
-6.6670E-01	6.0552E-02	-2.5000E-01	4.8531E-01	8.5466E-03	-7.0849E-02	2.1269E-03	-1.9632E-04
-6.6670E-01	7.4363E-02	-2.5000E-01	5.1151E-01	8.2294E-03	-6.1486E-02	1.3974E-03	-2.8470E-04
-6.6670E-01	9.1360E-02	-2.5000E-01	5.3698E-01	7.6461E-03	-6.0818E-02	1.7258E-03	-3.4438E-04
-6.6670E-01	9.1360E-02	-2.5000E-01	5.3758E-01	7.5756E-03	-6.0275E-02	1.9728E-03	-2.2202E-04
-6.6670E-01	1.2040E-01	-2.5000E-01	5.7951E-01	6.7862E-03	-6.0062E-02	2.2622E-03	1.2671E-05
-6.6670E-01	1.5156E-01	-2.5000E-01	6.1933E-01	6.1306E-03	-5.3984E-02	1.9269E-03	-5.4723E-05
-6.6670E-01	1.8980E-01	-2.5000E-01	6.6707E-01	5.3241E-03	-5.1694E-02	2.2115E-03	7.5276E-05
-6.6670E-01	2.3690E-01	-2.5000E-01	7.0895E-01	4.4716E-03	-4.1285E-02	1.3178E-03	-1.0055E-05
-6.6670E-01	2.9462E-01	-2.5000E-01	7.5605E-01	3.3341E-03	-4.1811E-02	1.2104E-03	-2.6086E-05
-6.6670E-01	3.6509E-01	-2.5000E-01	7.9952E-01	2.0581E-03	-3.4288E-02	8.7102E-04	-1.4403E-05
-6.6670E-01	4.5184E-01	-2.5000E-01	8.4273E-01	8.0158E-04	-3.2743E-02	4.1970E-04	1.1396E-05
-6.6670E-01	5.5807E-01	-2.5000E-01	8.6082E-01	8.7785E-05	-2.8789E-02	6.1215E-05	8.8337E-07
-6.6670E-01	6.8874E-01	-2.5000E-01	8.5614E-01	1.3423E-05	-3.3548E-02	9.7238E-06	1.3803E-06
-6.6670E-01	8.4880E-01	-2.5000E-01	8.5117E-01	4.9929E-06	-3.7965E-02	3.6752E-06	5.0501E-07
-6.6670E-01	1.0450E+00	-2.5000E-01	8.4778E-01	3.3415E-06	-4.4559E-02	3.4002E-07	-4.8101E-07

Table E.2-3 Hot-wire velocity measurements at X/T = -.667, Z/T = -.25.

File E45470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.90719

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.083405E-03

Estimated momentum thickness Reynolds number = 6916.125

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-6.6670E-01	3.8952E-03	-5.0000E-01	2.4617E-01	5.0909E-03	-1.4005E-01	1.6819E-03	-1.0370E-03
-6.6670E-01	4.6034E-03	-5.0000E-01	2.7534E-01	5.4480E-03	-1.4431E-01	1.8930E-03	-9.9985E-04
-6.6670E-01	5.6657E-03	-5.0000E-01	3.0138E-01	5.9678E-03	-1.4628E-01	2.7419E-03	-2.2306E-04
-6.6670E-01	6.7280E-03	-5.0000E-01	3.2268E-01	5.9217E-03	-1.5190E-01	2.3388E-03	-4.8794E-04
-6.6670E-01	8.1445E-03	-5.0000E-01	3.3934E-01	6.0904E-03	-1.5018E-01	2.4433E-03	-3.7039E-04
-6.6670E-01	9.9150E-03	-5.0000E-01	3.6022E-01	6.2362E-03	-1.4557E-01	2.4777E-03	-2.7340E-04
-6.6670E-01	9.9150E-03	-5.0000E-01	3.5484E-01	6.1407E-03	-1.4495E-01	2.5016E-03	-2.1080E-04
-6.6670E-01	1.2394E-02	-5.0000E-01	3.7463E-01	6.1770E-03	-1.4348E-01	2.6316E-03	-1.6333E-04
-6.6670E-01	1.4673E-02	-5.0000E-01	3.9106E-01	6.2191E-03	-1.4136E-01	2.8368E-03	4.9336E-05
-6.6670E-01	1.8059E-02	-5.0000E-01	4.0419E-01	6.4002E-03	-1.3743E-01	2.7245E-03	-3.8223E-05
-6.6670E-01	2.1955E-02	-5.0000E-01	4.2418E-01	6.4432E-03	-1.3157E-01	2.0630E-03	-5.0789E-04
-6.6670E-01	2.6912E-02	-5.0000E-01	4.4028E-01	6.7172E-03	-1.3289E-01	2.1567E-03	-2.9561E-04
-6.6670E-01	3.2575E-02	-5.0000E-01	4.5978E-01	6.9291E-03	-1.2734E-01	1.9463E-03	-3.3702E-04
-6.6670E-01	3.9660E-02	-5.0000E-01	4.7898E-01	7.0606E-03	-1.3132E-01	2.2815E-03	-3.2883E-04
-6.6670E-01	4.7805E-02	-5.0000E-01	4.9910E-01	7.1236E-03	-1.1982E-01	2.3480E-03	-1.3849E-04
-6.6670E-01	5.8074E-02	-5.0000E-01	5.2134E-01	7.1178E-03	-1.1521E-01	2.2086E-03	-2.0185E-04
-6.6670E-01	7.0822E-02	-5.0000E-01	5.4525E-01	7.0044E-03	-1.0734E-01	1.8821E-03	-2.5475E-04
-6.6670E-01	8.5694E-02	-5.0000E-01	5.6768E-01	6.6709E-03	-1.0334E-01	2.8394E-03	1.5761E-04
-6.6670E-01	1.0411E-01	-5.0000E-01	5.9710E-01	6.4039E-03	-9.6943E-02	1.8780E-03	-1.3712E-04
-6.6670E-01	1.2642E-01	-5.0000E-01	6.2323E-01	6.0678E-03	-9.1204E-02	1.6258E-03	-1.6499E-04
-6.6670E-01	1.5333E-01	-5.0000E-01	6.5461E-01	5.5738E-03	-8.8237E-02	1.7874E-03	-1.3608E-04
-6.6670E-01	1.8626E-01	-5.0000E-01	6.8834E-01	4.9895E-03	-9.0551E-02	2.1285E-03	1.4085E-04
-6.6670E-01	2.2592E-01	-5.0000E-01	7.2814E-01	4.2304E-03	-7.3573E-02	2.0214E-03	3.0348E-05
-6.6670E-01	2.7409E-01	-5.0000E-01	7.7087E-01	3.5368E-03	-7.0027E-02	1.6485E-03	6.5352E-05
-6.6670E-01	3.3286E-01	-5.0000E-01	8.1398E-01	2.6210E-03	-6.3638E-02	1.3295E-03	1.5287E-04
-6.6670E-01	4.0368E-01	-5.0000E-01	8.5860E-01	1.5742E-03	-5.5691E-02	5.6832E-04	3.5416E-05
-6.6670E-01	4.9009E-01	-5.0000E-01	8.9319E-01	4.8655E-04	-5.3611E-02	2.1303E-04	1.9575E-05
-6.6670E-01	5.9455E-01	-5.0000E-01	9.0335E-01	5.3373E-05	-5.3754E-02	3.8792E-05	7.5949E-06
-6.6670E-01	7.2132E-01	-5.0000E-01	8.9947E-01	1.1217E-05	-5.7077E-02	1.0086E-05	1.2911E-06
-6.6670E-01	8.7535E-01	-5.0000E-01	8.9652E-01	5.6342E-06	-5.9244E-02	4.5859E-06	9.5320E-08
-6.6670E-01	1.0620E+00	-5.0000E-01	8.9431E-01	4.5207E-06	-6.2122E-02	1.3945E-06	-3.2590E-07

Table E.2-4 Hot-wire velocity measurements at X/T = -.667, Z/T = -.50.

File E46470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.92023

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.083024E-03

Estimated momentum thickness Reynolds number = 6918.71

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-6.6670E-01	3.1870E-03	-7.5000E-01	3.1421E-01	5.2837E-03	-1.5440E-01	1.7814E-03	-1.1287E-03
-6.6670E-01	3.5411E-03	-7.5000E-01	3.0026E-01	5.1031E-03	-1.4856E-01	1.4930E-03	-1.4041E-03
-6.6670E-01	4.6034E-03	-7.5000E-01	3.3484E-01	5.5257E-03	-1.5866E-01	2.4164E-03	-7.6521E-04
-6.6670E-01	5.6657E-03	-7.5000E-01	3.6080E-01	5.6454E-03	-1.6517E-01	1.6056E-03	-9.5322E-04
-6.6670E-01	7.0822E-03	-7.5000E-01	3.8221E-01	5.5068E-03	-1.7153E-01	2.3207E-03	-6.1389E-04
-6.6670E-01	8.4986E-03	-7.5000E-01	3.9913E-01	5.4922E-03	-1.6626E-01	2.1327E-03	-6.1466E-04
-6.6670E-01	1.0269E-02	-7.5000E-01	4.1630E-01	5.4963E-03	-1.7000E-01	2.7727E-03	-2.1770E-04
-6.6670E-01	1.2748E-02	-7.5000E-01	4.3463E-01	5.4642E-03	-1.7043E-01	2.4925E-03	-2.5535E-04
-6.6670E-01	1.5591E-02	-7.5000E-01	4.5060E-01	5.4667E-03	-1.7191E-01	2.7604E-03	-1.4545E-04
-6.6670E-01	1.5581E-02	-7.5000E-01	4.5555E-01	5.5793E-03	-1.6409E-01	2.2914E-03	-2.8885E-04
-6.6670E-01	1.9122E-02	-7.5000E-01	4.6519E-01	5.5271E-03	-1.6637E-01	1.8278E-03	-5.5034E-04
-6.6670E-01	2.3371E-02	-7.5000E-01	4.8576E-01	5.7821E-03	-1.5907E-01	2.6351E-03	7.8448E-06
-6.6670E-01	2.8683E-02	-7.5000E-01	5.0154E-01	5.8936E-03	-1.5780E-01	2.4936E-03	-2.0602E-04
-6.6670E-01	3.5057E-02	-7.5000E-01	5.1890E-01	6.0150E-03	-1.5523E-01	2.0757E-03	-3.3620E-04
-6.6670E-01	4.2847E-02	-7.5000E-01	5.3711E-01	6.0959E-03	-1.5053E-01	2.1501E-03	-3.2065E-04
-6.6670E-01	4.2847E-02	-7.5000E-01	5.3774E-01	6.1770E-03	-1.4908E-01	2.7042E-03	-5.5537E-05
-6.6670E-01	5.2408E-02	-7.5000E-01	5.5802E-01	6.2528E-03	-1.5165E-01	2.3385E-03	-2.7977E-04
-6.6670E-01	6.4093E-02	-7.5000E-01	5.7766E-01	6.2107E-03	-1.4829E-01	2.3777E-03	-2.8774E-04
-6.6670E-01	7.8258E-02	-7.5000E-01	6.0111E-01	6.1794E-03	-1.3890E-01	2.2442E-03	-1.6496E-04
-6.6670E-01	9.5963E-02	-7.5000E-01	6.2756E-01	6.0037E-03	-1.3332E-01	1.9554E-03	-2.3102E-04
-6.6670E-01	1.1721E-01	-7.5000E-01	6.5279E-01	5.6227E-03	-1.3196E-01	2.2253E-03	-4.0807E-05
-6.6670E-01	1.4306E-01	-7.5000E-01	6.8178E-01	5.3623E-03	-1.2492E-01	1.7637E-03	-1.2355E-04
-6.6670E-01	1.7493E-01	-7.5000E-01	7.1456E-01	4.8288E-03	-1.2028E-01	2.3645E-03	1.2571E-04
-6.6670E-01	2.1398E-01	-7.5000E-01	7.5156E-01	4.4381E-03	-1.1538E-01	1.8204E-03	4.9277E-05
-6.6670E-01	2.6133E-01	-7.5000E-01	7.9493E-01	3.5404E-03	-1.0839E-01	1.8597E-03	1.2820E-04
-6.6670E-01	3.1905E-01	-7.5000E-01	8.3660E-01	2.8122E-03	-1.0787E-01	1.0967E-03	9.7567E-05
-6.6670E-01	3.8987E-01	-7.5000E-01	8.8163E-01	1.7166E-03	-9.8597E-02	7.9171E-04	8.3139E-05
-6.6670E-01	4.7663E-01	-7.5000E-01	9.2014E-01	6.2665E-04	-9.8400E-02	3.5338E-04	6.4083E-05
-6.6670E-01	5.8215E-01	-7.5000E-01	9.3537E-01	7.1758E-05	-9.4696E-02	2.6180E-05	6.9444E-06
-6.6670E-01	7.1140E-01	-7.5000E-01	9.3350E-01	1.2269E-05	-1.0027E-01	7.0454E-06	7.6724E-07
-6.6670E-01	8.6933E-01	-7.5000E-01	9.3021E-01	5.8037E-06	-1.0499E-01	2.7032E-06	-7.5180E-07
-6.6670E-01	1.0623E+00	-7.5000E-01	9.2941E-01	3.7273E-06	-1.0492E-01	3.4485E-06	5.3668E-08

Table E.2-5 Hot-wire velocity measurements at X/T = -.667, Z/T = -.75.

E.3 HOT-WIRE MEASUREMENTS IN PLANE D

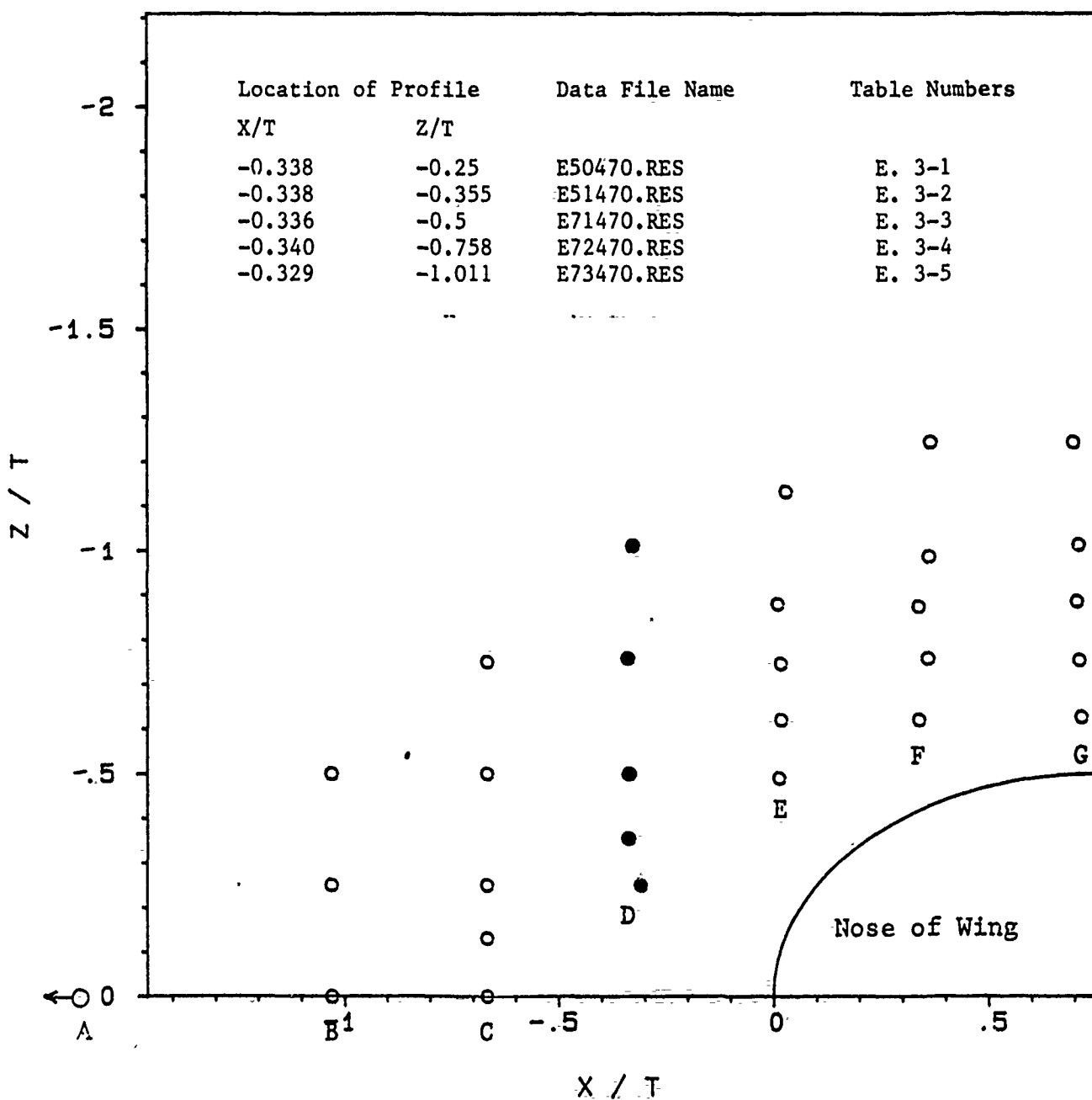


Figure E.3-1 Location of hot-wire profiles measured in plane D.

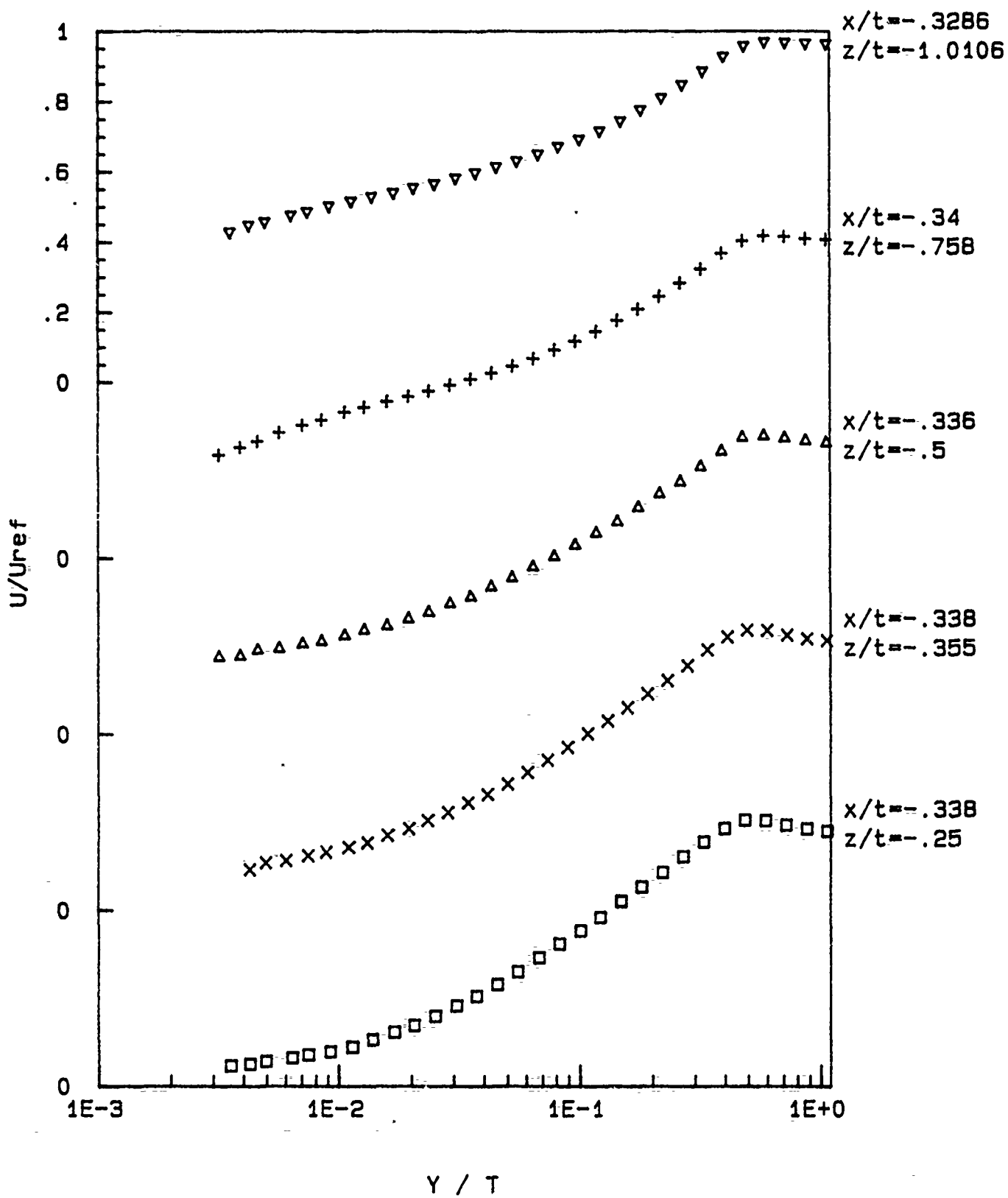


FIGURE E.3-2 Profiles of Mean-Velocity Component U, Plane D

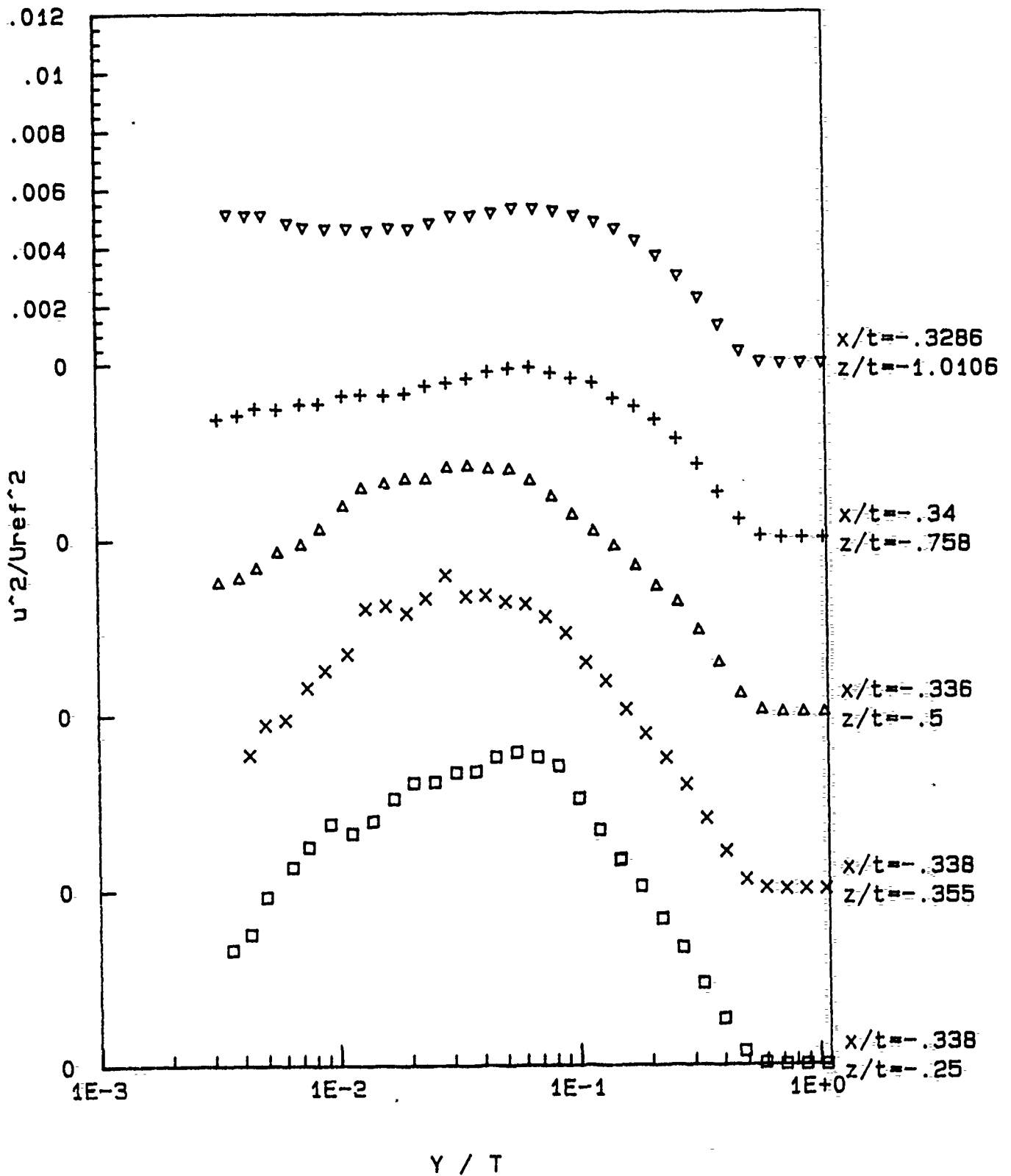


FIGURE E.3-3 Profiles of the U Component of Turbulence Normal Stress, Plane D

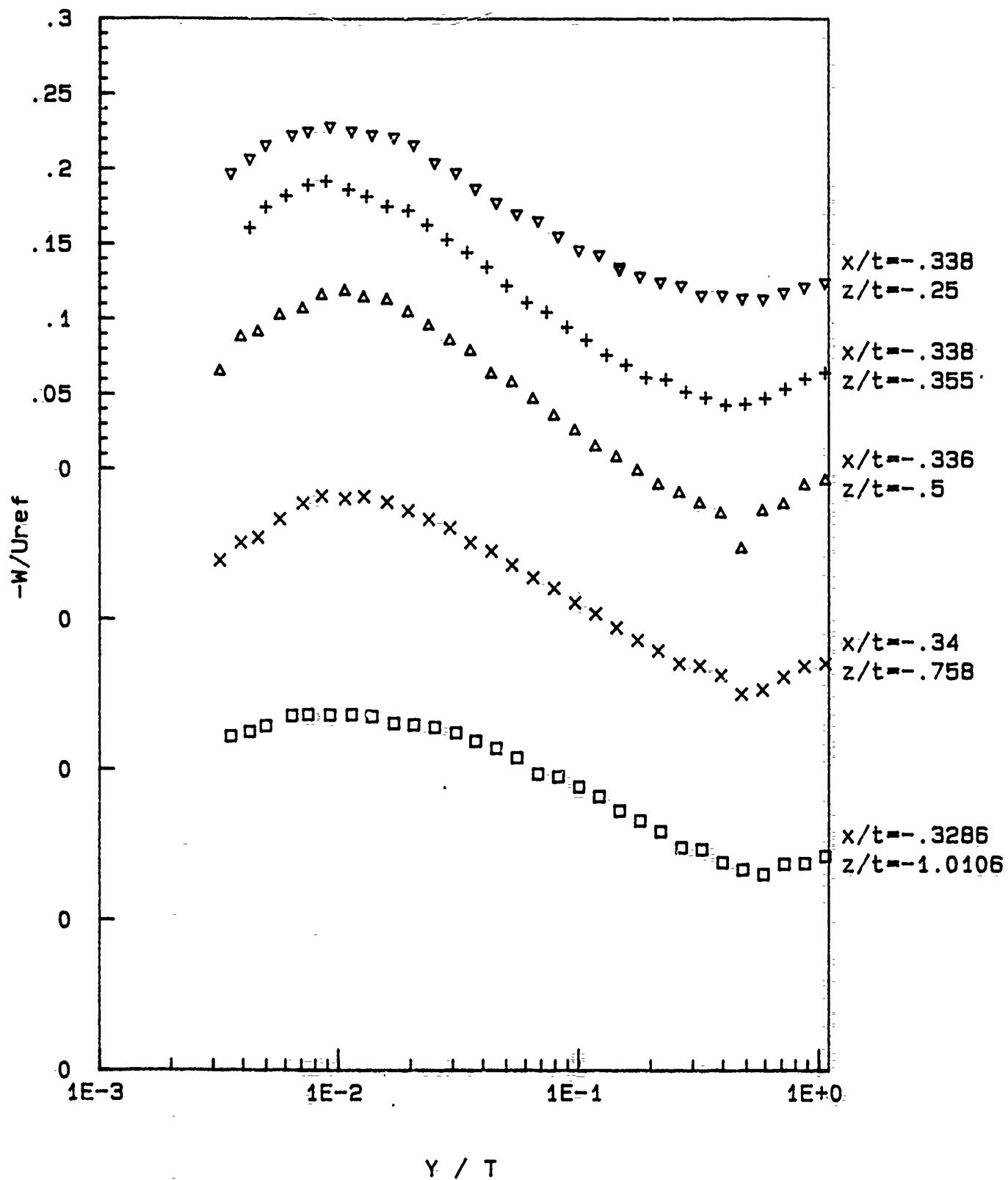


FIGURE E.3-4 Profiles of Mean-Velocity Component W, Plane D

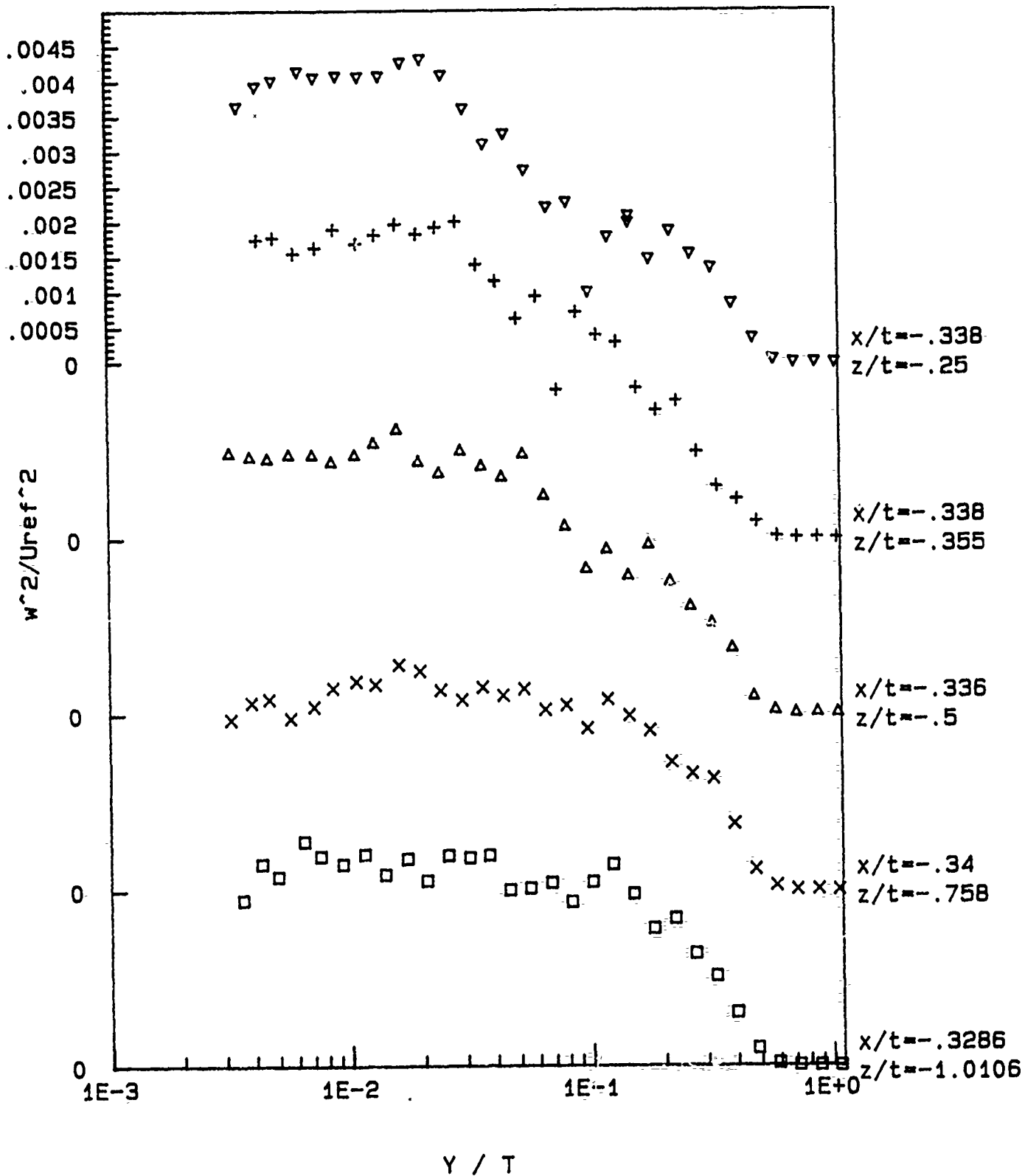


FIGURE E.3-5 Profiles of the W Component of Turbulence Normal Stress, Plane D

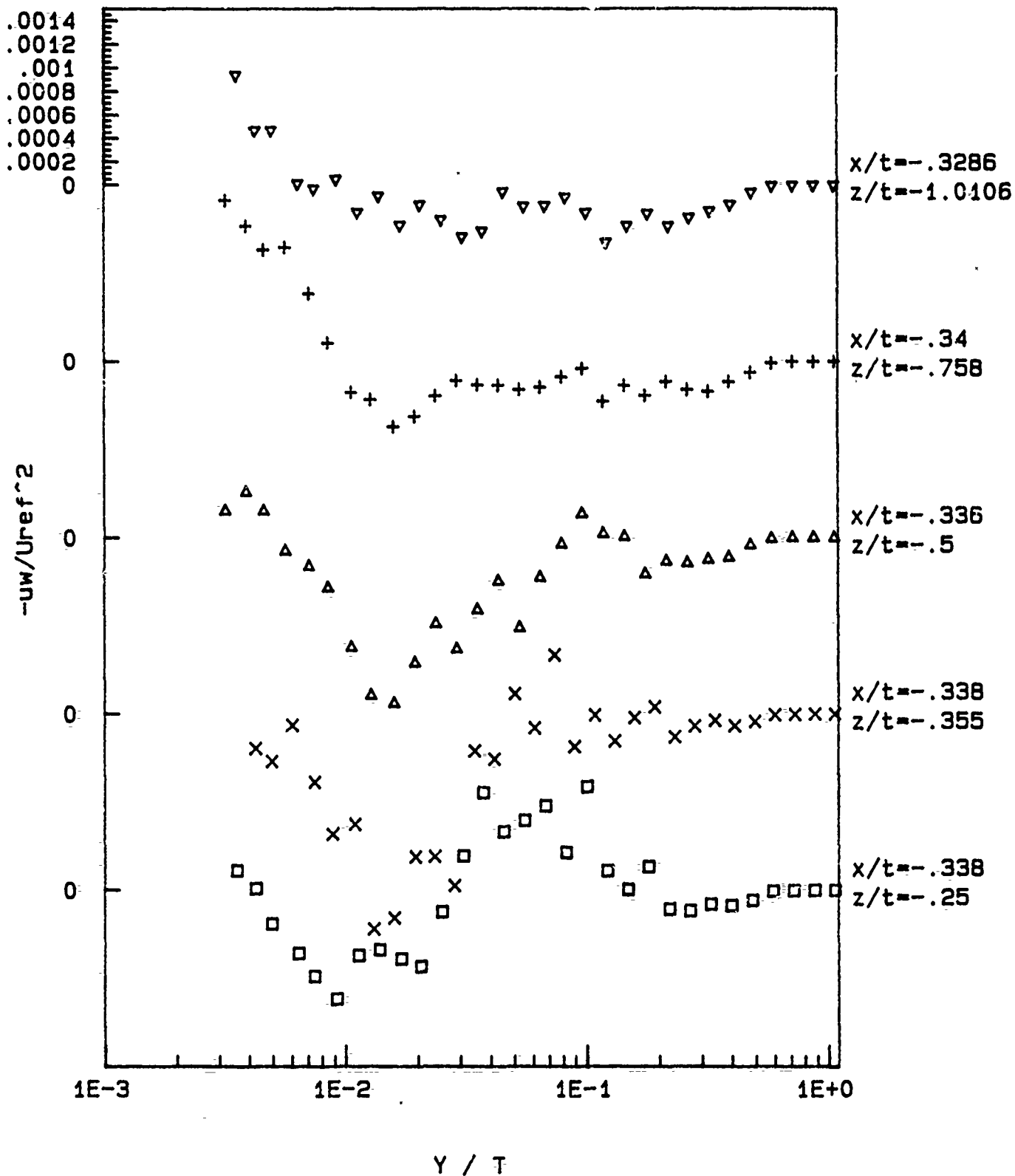


FIGURE E.3-6 Profiles of the UW Reynolds Shear Stress, Plane D

File E50470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.8039

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.116481E-03

Estimated momentum thickness Reynolds number = 6696.506

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-3.3800E-01	3.5411E-03	-2.5000E-01	5.9520E-02	3.9632E-03	-1.9718E-01	3.6592E-03	-1.6685E-04
-3.3800E-01	4.2493E-03	-2.5000E-01	6.3368E-02	4.5075E-03	-2.0696E-01	3.9452E-03	-1.3731E-05
-3.3800E-01	4.9575E-03	-2.5000E-01	7.0990E-02	5.7761E-03	-2.1616E-01	4.0249E-03	2.8749E-04
-3.3800E-01	6.3739E-03	-2.5000E-01	8.1618E-02	6.7922E-03	-2.2280E-01	4.1574E-03	5.3730E-04
-3.3800E-01	7.4363E-03	-2.5000E-01	8.9362E-02	7.4785E-03	-2.2539E-01	4.0698E-03	7.3385E-04
-3.3800E-01	9.2068E-03	-2.5000E-01	9.8734E-02	8.2714E-03	-2.2880E-01	4.0933E-03	9.2626E-04
-3.3800E-01	1.1331E-02	-2.5000E-01	1.1186E-01	7.9406E-03	-2.2553E-01	4.0789E-03	5.5337E-04
-3.3800E-01	1.3810E-02	-2.5000E-01	1.3301E-01	8.3670E-03	-2.2311E-01	4.0886E-03	5.0530E-04
-3.3800E-01	1.6997E-02	-2.5000E-01	1.5451E-01	9.1394E-03	-2.2144E-01	4.2760E-03	5.8424E-04
-3.3800E-01	2.0538E-02	-2.5000E-01	1.7387E-01	9.6692E-03	-2.1632E-01	4.3264E-03	6.4974E-04
-3.3800E-01	2.5142E-02	-2.5000E-01	1.9964E-01	9.7088E-03	-2.0442E-01	4.0948E-03	1.8433E-04
-3.3800E-01	3.0807E-02	-2.5000E-01	2.2974E-01	1.0034E-02	-1.9759E-01	3.6206E-03	-2.9186E-04
-3.3800E-01	3.7181E-02	-2.5000E-01	2.5668E-01	1.0055E-02	-1.8708E-01	3.1085E-03	-8.2920E-04
-3.3800E-01	4.5326E-02	-2.5000E-01	2.8990E-01	1.0556E-02	-1.7783E-01	3.2621E-03	-4.9476E-04
-3.3800E-01	5.5241E-02	-2.5000E-01	3.2518E-01	1.0713E-02	-1.7022E-01	2.7393E-03	-5.9257E-04
-3.3800E-01	6.7635E-02	-2.5000E-01	3.6615E-01	1.0547E-02	-1.6565E-01	2.2152E-03	-7.1694E-04
-3.3800E-01	8.2153E-02	-2.5000E-01	4.0568E-01	1.0236E-02	-1.5549E-01	2.2833E-03	-3.2025E-04
-3.3800E-01	1.0021E-01	-2.5000E-01	4.4269E-01	9.1212E-03	-1.4613E-01	1.0074E-03	-8.8049E-04
-3.3800E-01	1.2181E-01	-2.5000E-01	4.8108E-01	8.0428E-03	-1.4308E-01	1.7904E-03	-1.6346E-04
-3.3800E-01	1.4837E-01	-2.5000E-01	5.2738E-01	7.0232E-03	-1.3491E-01	1.9994E-03	-6.1514E-06
-3.3800E-01	1.4837E-01	-2.5000E-01	5.2575E-01	7.0441E-03	-1.3341E-01	2.0907E-03	-4.9515E-06
-3.3800E-01	1.8059E-01	-2.5000E-01	5.6699E-01	6.1155E-03	-1.2859E-01	1.4750E-03	-1.9810E-04
-3.3800E-01	2.1990E-01	-2.5000E-01	6.0854E-01	4.9959E-03	-1.2498E-01	1.8776E-03	1.6131E-04
-3.3800E-01	2.6805E-01	-2.5000E-01	6.5297E-01	4.0200E-03	-1.2237E-01	1.5471E-03	1.7648E-04
-3.3800E-01	3.2613E-01	-2.5000E-01	6.9564E-01	2.7953E-03	-1.1601E-01	1.3497E-03	1.1941E-04
-3.3800E-01	3.9731E-01	-2.5000E-01	7.3303E-01	1.5781E-03	-1.1607E-01	8.4175E-04	1.2984E-04
-3.3800E-01	4.8336E-01	-2.5000E-01	7.5685E-01	4.6132E-04	-1.1407E-01	3.5213E-04	8.5826E-05
-3.3800E-01	5.8853E-01	-2.5000E-01	7.5548E-01	5.5410E-05	-1.1344E-01	4.3578E-05	8.9252E-06
-3.3800E-01	7.1671E-01	-2.5000E-01	7.4259E-01	1.4513E-05	-1.1778E-01	9.7366E-06	4.4637E-06
-3.3800E-01	8.7252E-01	-2.5000E-01	7.3198E-01	5.0406E-06	-1.2150E-01	3.9202E-06	4.7471E-07
-3.3800E-01	1.0623E+00	-2.5000E-01	7.2565E-01	2.9064E-06	-1.2439E-01	3.2149E-06	-6.4724E-08

Table E.3-1 Hot-wire velocity measurements at X/T = -.338, Z/T = -.25.

File E51470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.80377

Estimated momentum thickness at X/T = -2.140, Z/T=0 (m) = 4.116484E-03

Estimated momentum thickness Reynolds number = 6696.482

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-3.3800E-01	4.2493E-03	-3.5500E-01	1.1669E-01	4.6421E-03	-2.6069E-01	4.2487E-03	2.9391E-04
-3.3800E-01	4.9575E-03	-3.5500E-01	1.3520E-01	5.6594E-03	-2.7457E-01	4.2843E-03	4.0455E-04
-3.3800E-01	6.0198E-03	-3.5500E-01	1.4197E-01	5.8374E-03	-2.8209E-01	4.0546E-03	9.3924E-05
-3.3800E-01	7.4363E-03	-3.5500E-01	1.5523E-01	6.9409E-03	-2.8926E-01	4.1368E-03	5.7896E-04
-3.3800E-01	8.8527E-03	-3.5500E-01	1.6590E-01	7.5278E-03	-2.9193E-01	4.3986E-03	1.0223E-03
-3.3800E-01	1.0977E-02	-3.5500E-01	1.7973E-01	8.0930E-03	-2.8631E-01	4.1931E-03	9.3876E-04
-3.3800E-01	1.3102E-02	-3.5500E-01	1.9317E-01	9.6433E-03	-2.8178E-01	4.3171E-03	1.8285E-03
-3.3800E-01	1.5935E-02	-3.5500E-01	2.1402E-01	9.7490E-03	-2.7507E-01	4.4688E-03	1.7336E-03
-3.3800E-01	1.9476E-02	-3.5500E-01	2.3314E-01	9.4813E-03	-2.7225E-01	4.3282E-03	1.2147E-03
-3.3800E-01	2.3371E-02	-3.5500E-01	2.5611E-01	9.9954E-03	-2.6251E-01	4.4251E-03	1.2119E-03
-3.3800E-01	2.8329E-02	-3.5500E-01	2.7897E-01	1.0784E-02	-2.5286E-01	4.5047E-03	1.4592E-03
-3.3800E-01	3.4348E-02	-3.5500E-01	3.0687E-01	1.0058E-02	-2.4414E-01	3.8909E-03	3.1339E-04
-3.3800E-01	4.1431E-02	-3.5500E-01	3.3009E-01	1.0084E-02	-2.3458E-01	3.6530E-03	3.8208E-04
-3.3800E-01	5.0293E-02	-3.5500E-01	3.5972E-01	9.8710E-03	-2.2214E-01	3.1177E-03	-1.7182E-04
-3.3800E-01	6.0907E-02	-3.5500E-01	3.9304E-01	9.7807E-03	-2.1087E-01	3.4340E-03	1.1820E-04
-3.3800E-01	7.3654E-02	-3.5500E-01	4.2773E-01	9.3365E-03	-2.0462E-01	2.1072E-03	-5.0251E-04
-3.3800E-01	8.9235E-02	-3.5500E-01	4.6439E-01	8.7885E-03	-1.9450E-01	3.2086E-03	2.7766E-04
-3.3800E-01	1.0800E-01	-3.5500E-01	5.0288E-01	7.7699E-03	-1.8611E-01	2.8857E-03	1.0342E-05
-3.3800E-01	1.3067E-01	-3.5500E-01	5.3860E-01	7.1462E-03	-1.7598E-01	2.7803E-03	2.3161E-04
-3.3800E-01	1.5793E-01	-3.5500E-01	5.7660E-01	6.1590E-03	-1.6947E-01	2.1353E-03	3.0430E-05
-3.3800E-01	1.9122E-01	-3.5500E-01	6.1648E-01	5.3409E-03	-1.6112E-01	1.8107E-03	-5.9845E-05
-3.3800E-01	2.3159E-01	-3.5500E-01	6.5469E-01	4.4907E-03	-1.5986E-01	1.9470E-03	1.9570E-04
-3.3800E-01	2.8010E-01	-3.5500E-01	6.9648E-01	3.5762E-03	-1.5147E-01	1.2213E-03	1.0346E-04
-3.3800E-01	3.3888E-01	-3.5500E-01	7.4228E-01	2.4347E-03	-1.4778E-01	7.3555E-04	5.5103E-05
-3.3800E-01	4.0970E-01	-3.5500E-01	7.7801E-01	1.2997E-03	-1.4279E-01	5.5081E-04	9.9678E-05
-3.3800E-01	4.9575E-01	-3.5500E-01	7.9776E-01	3.3691E-04	-1.4344E-01	2.3299E-04	6.4988E-05
-3.3800E-01	5.9986E-01	-3.5500E-01	7.9704E-01	4.4997E-05	-1.4726E-01	1.9595E-05	7.7009E-06
-3.3800E-01	7.2557E-01	-3.5500E-01	7.8314E-01	1.2397E-05	-1.5349E-01	7.0215E-06	3.3020E-06
-3.3800E-01	8.7783E-01	-3.5500E-01	7.7320E-01	5.0487E-06	-1.6035E-01	2.1617E-06	1.6636E-07
-3.3800E-01	1.0623E+00	-3.5500E-01	7.6763E-01	3.0780E-06	-1.6445E-01	1.4238E-06	-2.9367E-07

Table E.3-2 Hot-wire velocity measurements at X/T = -.338, Z/T = -.355.

File E71470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.27433

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.132942E-03

Estimated momentum thickness Reynolds number = 6590.453

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-3.3600E-01	3.1870E-03	-5.0000E-01	2.1978E-01	4.5027E-03	-2.6473E-01	3.7084E-03	-2.2690E-04
-3.3600E-01	3.8952E-03	-5.0000E-01	2.2318E-01	4.6488E-03	-2.8754E-01	3.6508E-03	-3.8784E-04
-3.3600E-01	4.6034E-03	-5.0000E-01	2.3962E-01	4.9964E-03	-2.9113E-01	3.6238E-03	-2.2373E-04
-3.3600E-01	5.6657E-03	-5.0000E-01	2.4430E-01	5.5502E-03	-3.0201E-01	3.6916E-03	1.1779E-04
-3.3600E-01	7.0822E-03	-5.0000E-01	2.5717E-01	5.8011E-03	-3.0630E-01	3.6813E-03	2.4781E-04
-3.3600E-01	8.4986E-03	-5.0000E-01	2.6430E-01	6.3316E-03	-3.1544E-01	3.5754E-03	4.3050E-04
-3.3600E-01	1.0623E-02	-5.0000E-01	2.8102E-01	7.1169E-03	-3.1831E-01	3.6791E-03	9.3571E-04
-3.3600E-01	1.2748E-02	-5.0000E-01	2.9645E-01	7.7388E-03	-3.1388E-01	3.8463E-03	1.3453E-03
-3.3600E-01	1.5935E-02	-5.0000E-01	3.0876E-01	7.8927E-03	-3.1222E-01	4.0443E-03	1.4139E-03
-3.3600E-01	1.9476E-02	-5.0000E-01	3.2895E-01	8.0429E-03	-3.0403E-01	3.5844E-03	1.0678E-03
-3.3600E-01	2.3725E-02	-5.0000E-01	3.4731E-01	8.0499E-03	-2.9494E-01	3.4208E-03	7.3446E-04
-3.3600E-01	2.9037E-02	-5.0000E-01	3.7224E-01	8.4398E-03	-2.8529E-01	3.7341E-03	9.4875E-04
-3.3600E-01	3.5411E-02	-5.0000E-01	3.9141E-01	8.4883E-03	-2.7824E-01	3.5159E-03	6.1597E-04
-3.3600E-01	4.3201E-02	-5.0000E-01	4.1923E-01	8.3836E-03	-2.6306E-01	3.3628E-03	3.7112E-04
-3.3600E-01	5.2762E-02	-5.0000E-01	4.4526E-01	8.3564E-03	-2.5741E-01	3.6877E-03	7.7002E-04
-3.3600E-01	6.4448E-02	-5.0000E-01	4.7620E-01	7.9754E-03	-2.4630E-01	3.0935E-03	3.4078E-04
-3.3600E-01	7.8966E-02	-5.0000E-01	5.0584E-01	7.4159E-03	-2.3539E-01	2.6563E-03	5.7589E-05
-3.3600E-01	9.6317E-02	-5.0000E-01	5.3856E-01	6.7969E-03	-2.2530E-01	2.0509E-03	-2.0248E-04
-3.3600E-01	1.1756E-01	-5.0000E-01	5.7254E-01	6.2268E-03	-2.1479E-01	2.3277E-03	-3.1089E-05
-3.3600E-01	1.4377E-01	-5.0000E-01	6.0490E-01	5.7252E-03	-2.0778E-01	1.9479E-03	-5.1048E-06
-3.3600E-01	1.7564E-01	-5.0000E-01	6.4440E-01	5.0346E-03	-1.9853E-01	2.3932E-03	3.1403E-04
-3.3600E-01	2.1459E-01	-5.0000E-01	6.8395E-01	4.3377E-03	-1.8939E-01	1.8658E-03	2.0291E-04
-3.3600E-01	2.6204E-01	-5.0000E-01	7.1783E-01	3.7972E-03	-1.8389E-01	1.5112E-03	2.1944E-04
-3.3600E-01	3.1976E-01	-5.0000E-01	7.6138E-01	2.8190E-03	-1.7705E-01	1.2763E-03	1.8856E-04
-3.3600E-01	3.8952E-01	-5.0000E-01	8.0488E-01	1.7236E-03	-1.7013E-01	9.1994E-04	1.6902E-04
-3.3600E-01	4.7653E-01	-5.0000E-01	8.4411E-01	6.5889E-04	-1.4689E-01	2.3608E-04	6.4308E-05
-3.3600E-01	5.8286E-01	-5.0000E-01	8.4868E-01	8.2282E-05	-1.7193E-01	3.5822E-05	9.2376E-06
-3.3600E-01	7.1211E-01	-5.0000E-01	8.4277E-01	1.5673E-05	-1.7651E-01		1.2801E-06
-3.3600E-01	8.6969E-01	-5.0000E-01	8.3482E-01	5.0901E-06	-1.8927E-01	4.6991E-06	5.0426E-07
-3.3600E-01	1.0623E+00	-5.0000E-01	8.2917E-01	3.1428E-06	-1.9236E-01	3.8089E-06	1.2716E-07

Table E.3-3 Hot-wire velocity measurements at X/T = -.336, Z/T = -.5.

File E72470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.23034

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.134328E-03

Estimated momentum thickness Reynolds number = 6581.624

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-3.4000E-01	3.1870E-03	-7.5800E-01	2.9491E-01	4.1395E-03	-2.3920E-01	2.4343E-03	-1.3713E-03
-3.4000E-01	3.8952E-03	-7.5800E-01	3.1649E-01	4.2605E-03	-2.5113E-01	2.6714E-03	-1.1530E-03
-3.4000E-01	4.6034E-03	-7.5800E-01	3.3403E-01	4.4998E-03	-2.5469E-01	2.7206E-03	-9.4659E-04
-3.4000E-01	5.6657E-03	-7.5800E-01	3.5895E-01	4.4699E-03	-2.6678E-01	2.4497E-03	-9.6819E-04
-3.4000E-01	7.0822E-03	-7.5800E-01	3.7942E-01	4.6257E-03	-2.7739E-01	2.6162E-03	-5.7536E-04
-3.4000E-01	8.4926E-03	-7.5800E-01	3.9463E-01	4.6500E-03	-2.8229E-01	2.8772E-03	-1.5572E-04
-3.4000E-01	1.0623E-02	-7.5800E-01	4.1740E-01	4.9222E-03	-2.8054E-01	2.9750E-03	2.6631E-04
-3.4000E-01	1.2748E-02	-7.5800E-01	4.3105E-01	4.9687E-03	-2.8198E-01	2.9271E-03	3.2696E-04
-3.4000E-01	1.5935E-02	-7.5800E-01	4.4768E-01	4.9396E-03	-2.7836E-01	3.2102E-03	5.5818E-04
-3.4000E-01	1.9476E-02	-7.5800E-01	4.6213E-01	4.9960E-03	-2.7237E-01	3.1185E-03	4.7078E-04
-3.4000E-01	2.3725E-02	-7.5800E-01	4.7740E-01	5.2600E-03	-2.6665E-01	2.8451E-03	2.9442E-04
-3.4000E-01	2.9037E-02	-7.5800E-01	4.9445E-01	5.3631E-03	-2.6102E-01	2.7044E-03	1.6390E-04
-3.4000E-01	3.5411E-02	-7.5800E-01	5.1122E-01	5.5133E-03	-2.5119E-01	2.8827E-03	2.0073E-04
-3.4000E-01	4.3201E-02	-7.5800E-01	5.2857E-01	5.7405E-03	-2.4552E-01	2.7677E-03	2.0395E-04
-3.4000E-01	5.2762E-02	-7.5800E-01	5.4781E-01	5.8423E-03	-2.3630E-01	2.8581E-03	2.4070E-04
-3.4000E-01	6.4448E-02	-7.5800E-01	5.6922E-01	5.8807E-03	-2.2793E-01	2.5603E-03	2.2009E-04
-3.4000E-01	7.8966E-02	-7.5800E-01	5.9390E-01	5.6790E-03	-2.2094E-01	2.6259E-03	1.3153E-04
-3.4000E-01	9.6317E-02	-7.5800E-01	6.1917E-01	5.4972E-03	-2.1124E-01	2.2936E-03	5.9512E-05
-3.4000E-01	1.1756E-01	-7.5800E-01	6.4609E-01	5.3487E-03	-2.0395E-01	2.7068E-03	3.4197E-04
-3.4000E-01	1.4377E-01	-7.5800E-01	6.7721E-01	4.8009E-03	-1.9469E-01	2.4733E-03	2.0646E-04
-3.4000E-01	1.7564E-01	-7.5800E-01	7.0946E-01	4.5098E-03	-1.8619E-01	2.2614E-03	2.9275E-04
-3.4000E-01	2.1459E-01	-7.5800E-01	7.4553E-01	4.0659E-03	-1.7930E-01	1.8096E-03	1.7143E-04
-3.4000E-01	2.6204E-01	-7.5800E-01	7.8416E-01	3.4932E-03	-1.7060E-01	1.6480E-03	2.4180E-04
-3.4000E-01	3.1976E-01	-7.5800E-01	8.2421E-01	2.5278E-03	-1.6937E-01	1.5806E-03	2.5678E-04
-3.4000E-01	3.9093E-01	-7.5800E-01	8.6890E-01	1.5788E-03	-1.6297E-01	9.3852E-04	1.7139E-04
-3.4000E-01	4.7734E-01	-7.5800E-01	9.0446E-01	6.4798E-04	-1.5059E-01	2.9538E-04	9.4158E-05
-3.4000E-01	5.8286E-01	-7.5800E-01	9.1877E-01	7.1150E-05	-1.5336E-01	5.8221E-05	1.2678E-05
-3.4000E-01	7.1211E-01	-7.5800E-01	9.1656E-01	1.1767E-05	-1.6185E-01	6.2702E-06	1.3977E-07
-3.4000E-01	8.6969E-01	-7.5800E-01	9.1061E-01	5.4651E-06	-1.6917E-01	5.3202E-06	8.5196E-07
-3.4000E-01	1.0623E+00	-7.5800E-01	9.0817E-01	3.9812E-06	-1.7091E-01	2.1796E-06	-3.4471E-07

Table E.3-4 Hot-wire velocity measurements at X/T = -.340, Z/T = -.758.

File E73470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.105

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.26607

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.133202E-03

Estimated momentum thickness Reynolds number = 6588.794

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
-3.2860E-01	3.5411E-03	-1.0106E+00	4.3006E-01	5.1755E-03	-2.2207E-01	2.3656E-03	-9.4044E-04
-3.2860E-01	4.2493E-03	-1.0106E+00	4.4982E-01	5.1371E-03	-2.2521E-01	2.8773E-03	-4.6565E-04
-3.2860E-01	4.9575E-03	-1.0106E+00	4.5851E-01	5.1230E-03	-2.2907E-01	2.6972E-03	-4.6698E-04
-3.2860E-01	5.3739E-03	-1.0106E+00	4.7783E-01	4.8582E-03	-2.3584E-01	3.1955E-03	-1.3231E-05
-3.2860E-01	7.4353E-03	-1.0106E+00	4.8730E-01	4.7141E-03	-2.3663E-01	2.9855E-03	3.1027E-05
-3.2860E-01	9.2069E-03	-1.0106E+00	5.0427E-01	4.6531E-03	-2.3655E-01	2.8718E-03	-5.0827E-05
-3.2860E-01	1.1331E-02	-1.0106E+00	5.1825E-01	4.6689E-03	-2.3659E-01	3.0095E-03	2.3047E-04
-3.2860E-01	1.3810E-02	-1.0106E+00	5.3084E-01	4.5939E-03	-2.3548E-01	2.7252E-03	9.1849E-05
-3.2860E-01	1.6997E-02	-1.0106E+00	5.4218E-01	4.7016E-03	-2.3069E-01	2.9466E-03	3.4248E-04
-3.2860E-01	2.0538E-02	-1.0106E+00	5.5627E-01	4.6457E-03	-2.2975E-01	2.6339E-03	1.6812E-04
-3.2860E-01	2.5142E-02	-1.0106E+00	5.6786E-01	4.8556E-03	-2.2824E-01	2.9955E-03	2.9601E-04
-3.2860E-01	3.0807E-02	-1.0106E+00	5.8412E-01	5.1085E-03	-2.2448E-01	2.9619E-03	4.4046E-04
-3.2860E-01	3.7181E-02	-1.0106E+00	5.7371E-01	5.0991E-03	-2.1896E-01	2.9949E-03	3.9170E-04
-3.2860E-01	4.5326E-02	-1.0106E+00	6.1542E-01	5.2005E-03	-2.1423E-01	2.5002E-03	5.6585E-05
-3.2860E-01	5.5241E-02	-1.0106E+00	6.3234E-01	5.3450E-03	-2.0901E-01	2.5242E-03	1.8052E-04
-3.2860E-01	6.7635E-02	-1.0106E+00	6.5206E-01	5.3411E-03	-1.9710E-01	2.6039E-03	1.7478E-04
-3.2860E-01	8.2153E-02	-1.0106E+00	6.7331E-01	5.2579E-03	-1.9535E-01	2.3276E-03	1.0218E-04
-3.2860E-01	1.0021E-01	-1.0106E+00	6.9462E-01	5.0842E-03	-1.8850E-01	2.6123E-03	2.3411E-04
-3.2860E-01	1.2181E-01	-1.0106E+00	7.1808E-01	4.8880E-03	-1.8213E-01	2.8619E-03	4.8755E-04
-3.2860E-01	1.4837E-01	-1.0106E+00	7.4634E-01	4.6279E-03	-1.7265E-01	2.4406E-03	3.4643E-04
-3.2860E-01	1.8059E-01	-1.0106E+00	7.7759E-01	4.2202E-03	-1.6595E-01	1.9466E-03	2.4137E-04
-3.2860E-01	2.1990E-01	-1.0106E+00	8.1194E-01	3.7003E-03	-1.5896E-01	2.0920E-03	3.4786E-04
-3.2860E-01	2.6806E-01	-1.0106E+00	8.4907E-01	3.0168E-03	-1.4815E-01	1.5905E-03	2.7599E-04
-3.2860E-01	3.2613E-01	-1.0106E+00	8.8821E-01	2.2514E-03	-1.4706E-01	1.2728E-03	2.1930E-04
-3.2860E-01	3.9731E-01	-1.0106E+00	9.2871E-01	1.3149E-03	-1.3827E-01	7.5200E-04	1.6423E-04
-3.2860E-01	4.8336E-01	-1.0106E+00	9.5898E-01	4.2847E-04	-1.3350E-01	2.4685E-04	6.1197E-05
-3.2860E-01	5.8853E-01	-1.0106E+00	9.7058E-01	4.7403E-05	-1.3035E-01	3.0430E-05	4.3705E-06
-3.2860E-01	7.1671E-01	-1.0106E+00	9.6915E-01	1.0492E-05	-1.3731E-01	8.0226E-06	1.9938E-06
-3.2860E-01	8.7252E-01	-1.0106E+00	9.6657E-01	5.9096E-06	-1.3784E-01		-2.4833E-07
-3.2860E-01	1.0623E+00	-1.0106E+00	9.6542E-01	4.2950E-06	-1.4261E-01	2.1614E-08	-4.7459E-07

Table E.3-5 Hot-wire velocity measurements at X/T = -0.329, Z/T = -1.011.

E.4 HOT-WIRE MEASUREMENTS IN PLANE E

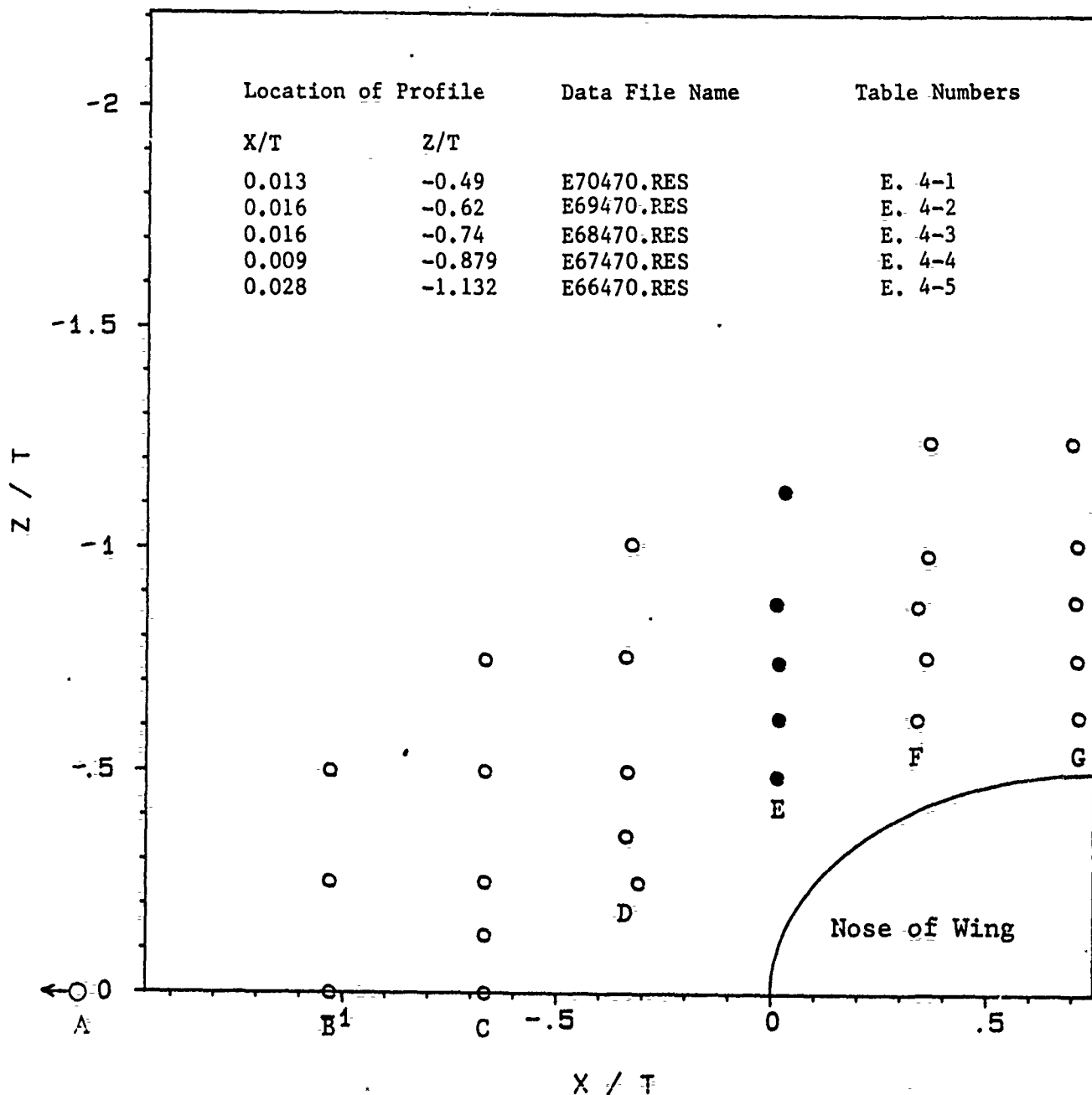


Figure E.4-1 Location of hot-wire profiles measured in plane E.

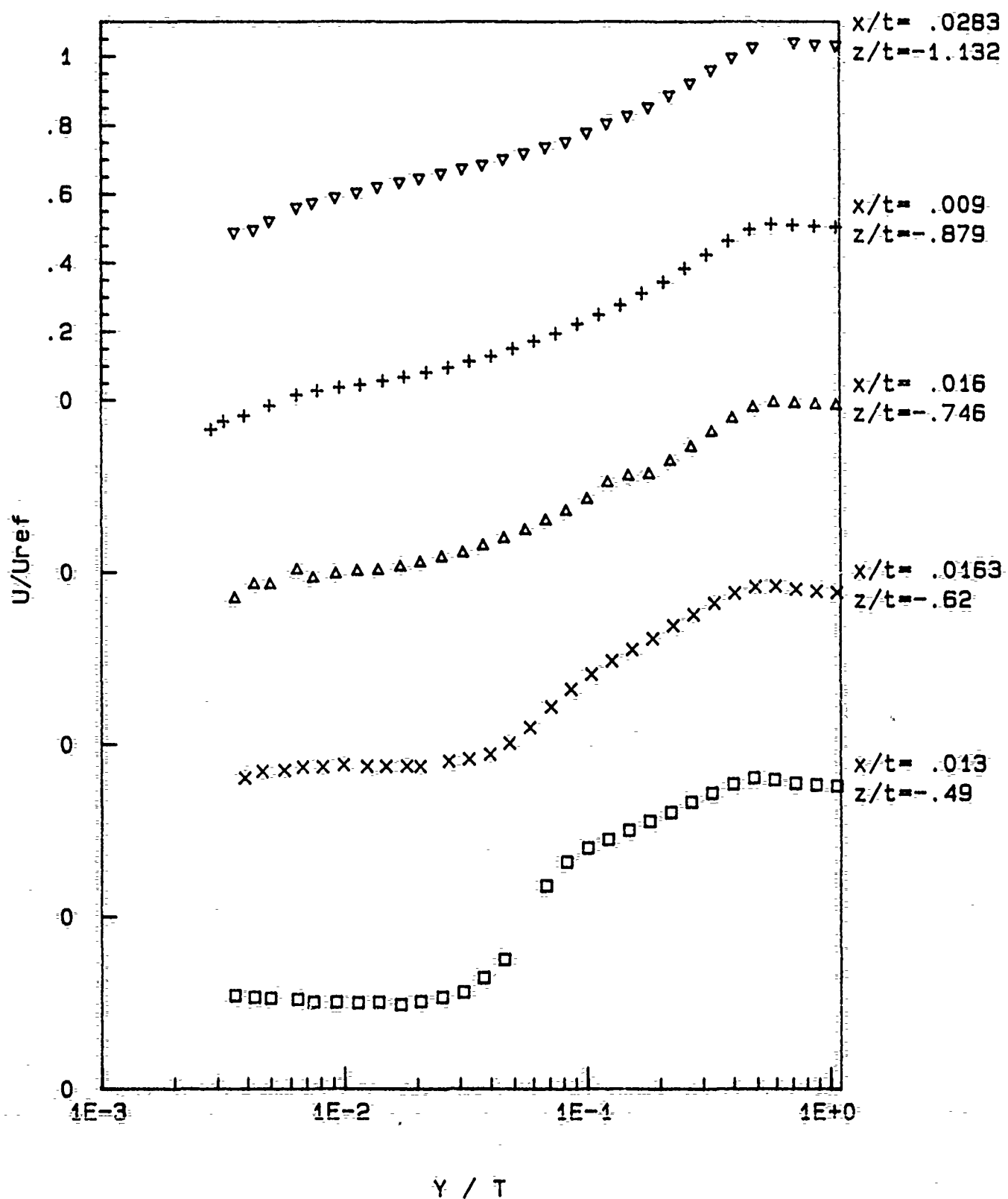


FIGURE E.4-2 Profiles of Mean Velocity Component U, Plane E

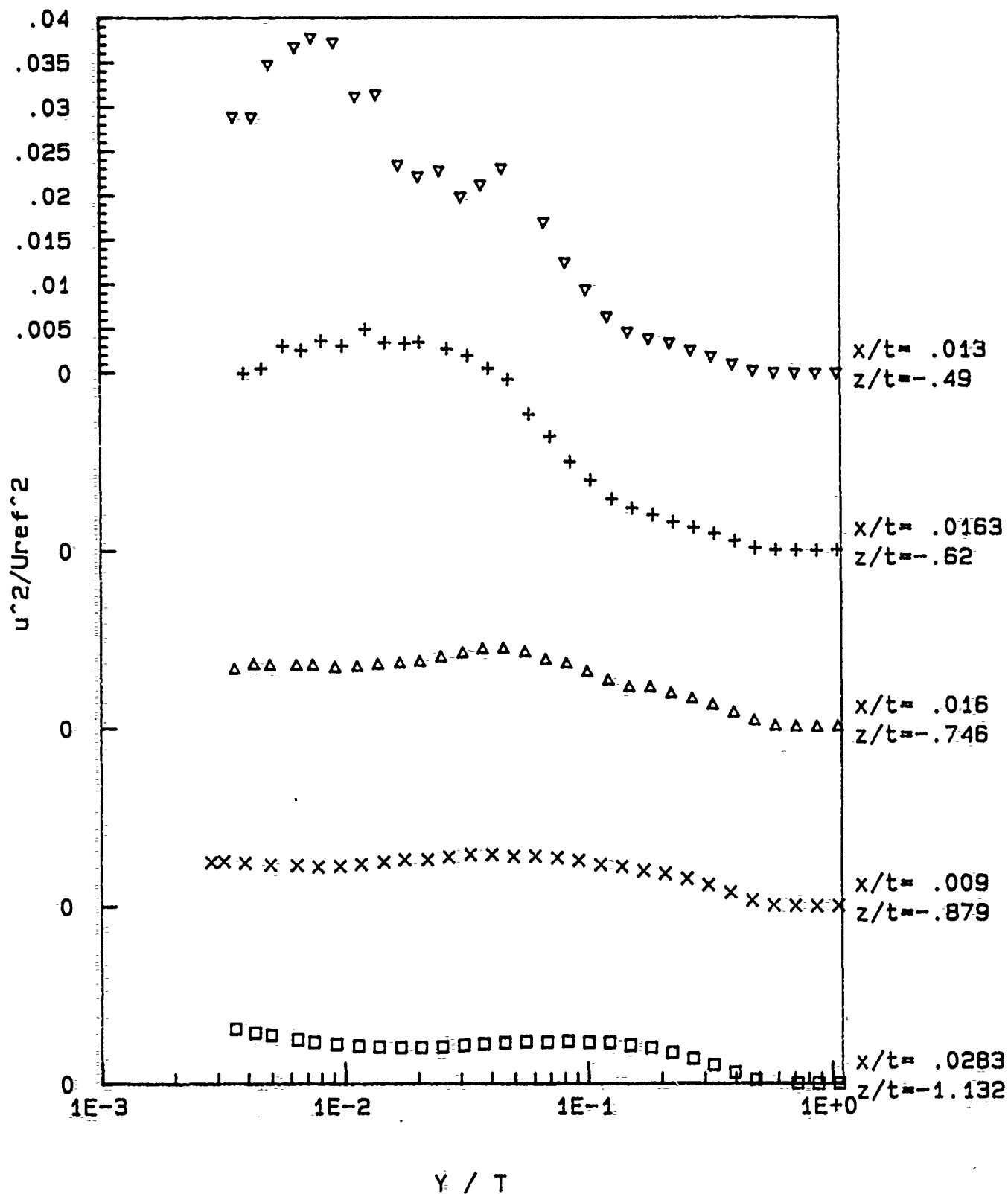


FIGURE E.4-3 Profiles of the U Component of Turbulence Normal Stress, Plane E

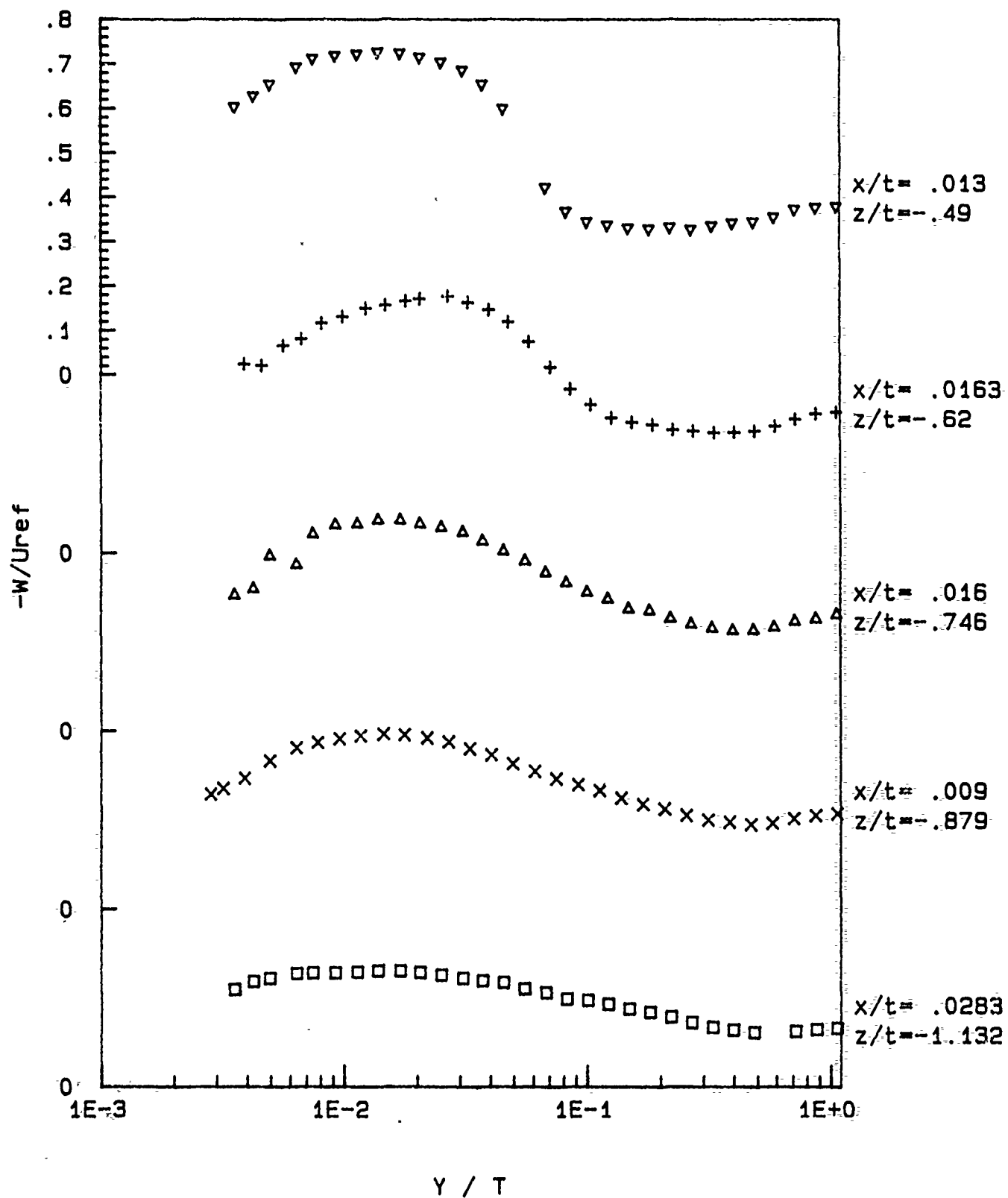


FIGURE E.4-4 Profiles of Mean-Velocity Component W, Plane E

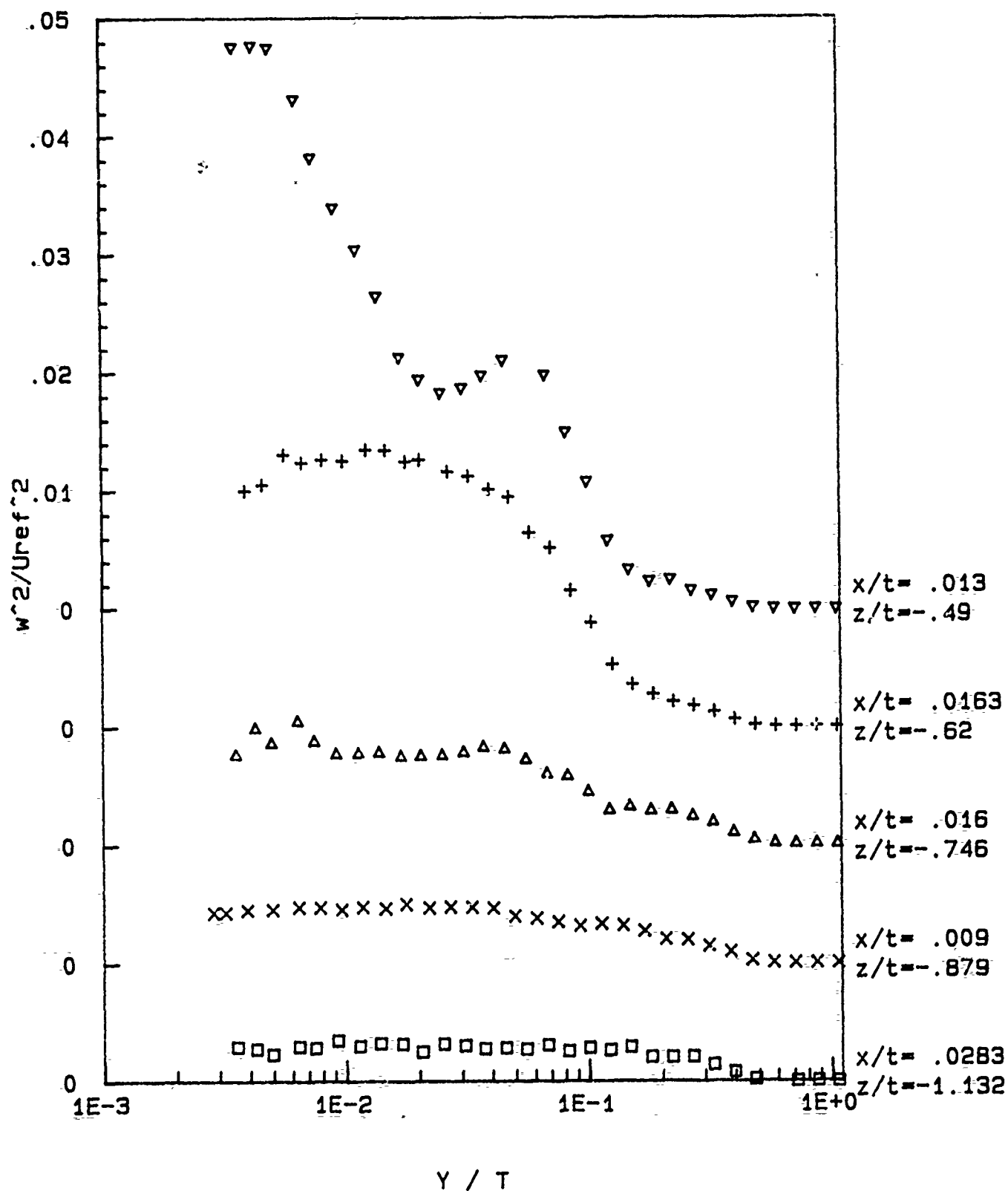


FIGURE E.4-5 Profiles of the W Component of Turbulence Normal Stress, Plane E

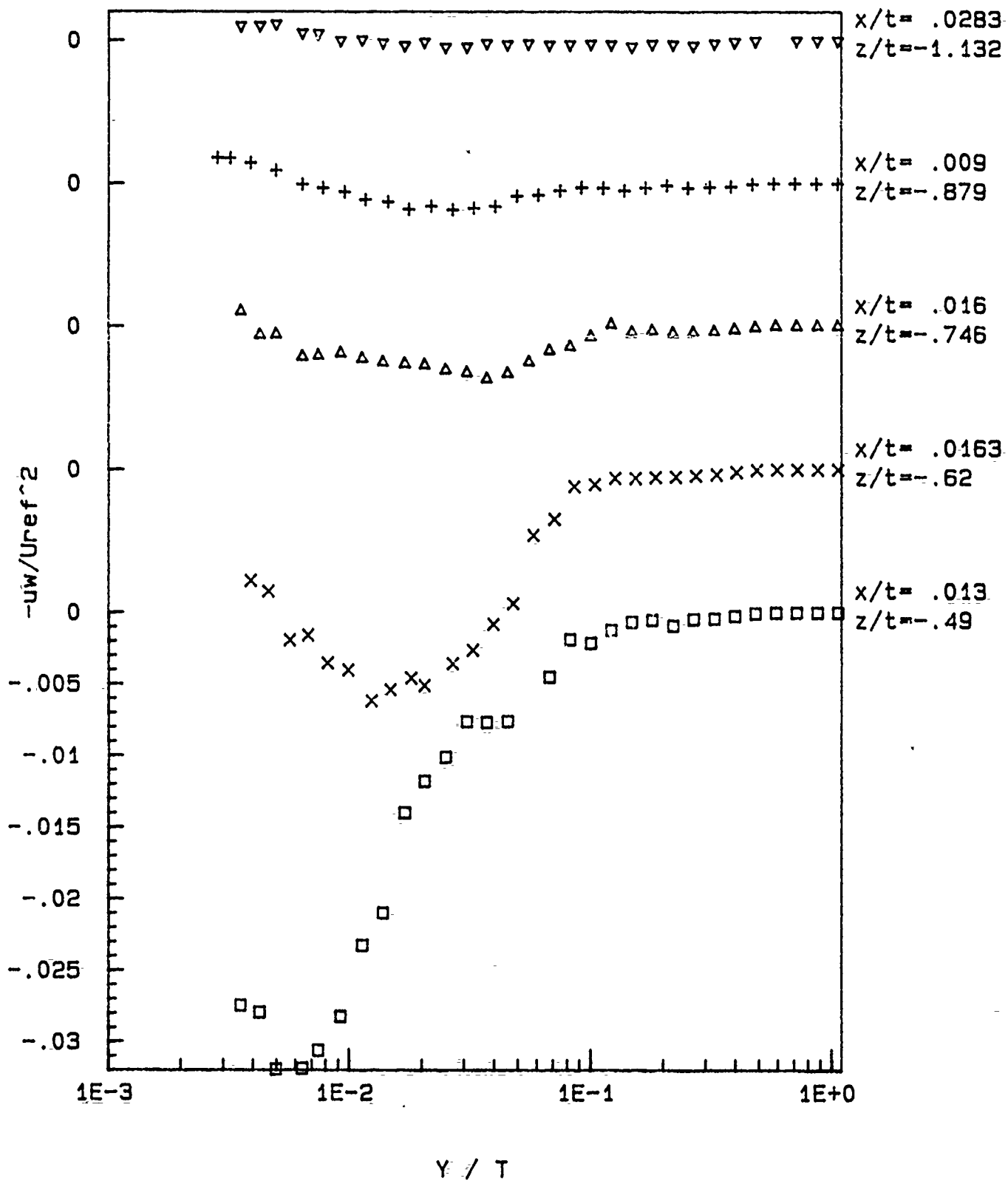


FIGURE E.4-6 Profiles of the UW Reynolds Shear Stress, Plane E

File E70470.RES
 Velocity measurements obtained using the single-sensor hot wire probe
 Flow temperature (degrees centigrade) = 23
 density (kilograms per meter cubed) = 1.106
 viscosity (meters squared per second) = 1.65237E-05
 Atmospheric pressure (Pascals) = 94000
 Velocity of undisturbed free stream (Uref, in m/s) = 26.41641
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.12848E-03
 Estimated momentum thickness Reynolds number = 6618.949

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
1.3000E-02	3.5411E-03	-4.9000E-01	2.7168E-01	2.8978E-02	-6.0404E-01	4.7628E-02	2.7474E-02
1.3000E-02	4.2493E-03	-4.9000E-01	2.6644E-01	2.8900E-02	-6.2857E-01	4.7714E-02	2.7963E-02
1.3000E-02	4.9575E-03	-4.9000E-01	2.6404E-01	3.4825E-02	-6.5481E-01	4.7519E-02	3.1953E-02
1.3000E-02	6.3737E-03	-4.9000E-01	2.6087E-01	3.6787E-02	-6.9307E-01	4.3147E-02	3.1883E-02
1.3000E-02	7.4363E-03	-4.9000E-01	2.5191E-01	3.7837E-02	-7.1249E-01	3.8198E-02	3.0603E-02
1.3000E-02	9.2069E-03	-4.9000E-01	2.5195E-01	3.7292E-02	-7.1925E-01	3.3947E-02	2.8234E-02
1.3000E-02	1.1331E-02	-4.9000E-01	2.5059E-01	3.1193E-02	-7.2231E-01	3.0405E-02	2.3251E-02
1.3000E-02	1.3810E-02	-4.9000E-01	2.5259E-01	3.1418E-02	-7.2721E-01	2.6449E-02	2.0988E-02
1.3000E-02	1.6997E-02	-4.9000E-01	2.4527E-01	2.3468E-02	-7.2461E-01	2.1281E-02	1.4009E-02
1.3000E-02	2.0538E-02	-4.9000E-01	2.5448E-01	2.2186E-02	-7.1527E-01	1.9420E-02	1.1810E-02
1.3000E-02	2.5142E-02	-4.9000E-01	2.6665E-01	2.2848E-02	-7.0428E-01	1.8276E-02	1.0128E-02
1.3000E-02	3.0807E-02	-4.9000E-01	2.8146E-01	1.9919E-02	-6.8654E-01	1.8695E-02	7.6302E-03
1.3000E-02	3.7181E-02	-4.9000E-01	3.2370E-01	2.1220E-02	-6.5472E-01	1.9746E-02	7.6978E-03
1.3000E-02	4.5326E-02	-4.9000E-01	3.7672E-01	2.3118E-02	-5.9996E-01	2.1071E-02	7.6152E-03
1.3000E-02	6.7635E-02	-4.9000E-01	5.9068E-01	1.7061E-02	-4.2248E-01	1.9796E-02	4.5221E-03
1.3000E-02	8.2153E-02	-4.9000E-01	6.6004E-01	1.2483E-02	-3.6828E-01	1.4941E-02	1.8818E-03
1.3000E-02	1.0021E-01	-4.9000E-01	6.9991E-01	9.3993E-03	-3.4490E-01	1.0763E-02	2.1369E-03
1.3000E-02	1.2181E-01	-4.9000E-01	7.2481E-01	6.3660E-03	-3.3768E-01	5.7908E-03	1.2304E-03
1.3000E-02	1.4837E-01	-4.9000E-01	7.5159E-01	4.6718E-03	-3.3118E-01	3.3360E-03	6.7338E-04
1.3000E-02	1.8059E-01	-4.9000E-01	7.7757E-01	3.8522E-03	-3.2883E-01	2.3635E-03	5.2331E-04
1.3000E-02	2.1990E-01	-4.9000E-01	8.0334E-01	3.4144E-03	-3.3256E-01	2.5082E-03	9.2620E-04
1.3000E-02	2.6806E-01	-4.9000E-01	8.3332E-01	2.5765E-03	-3.2807E-01	1.5652E-03	4.6734E-04
1.3000E-02	3.2613E-01	-4.9000E-01	8.5944E-01	1.9150E-03	-3.3577E-01	1.1761E-03	4.3955E-04
1.3000E-02	3.9731E-01	-4.9000E-01	8.8575E-01	1.0427E-03	-3.4237E-01	6.2630E-04	2.5843E-04
1.3000E-02	4.8336E-01	-4.9000E-01	9.0299E-01	2.8156E-04	-3.4496E-01	1.7756E-04	7.0295E-05
1.3000E-02	5.8853E-01	-4.9000E-01	8.9839E-01	4.4532E-05	-3.5579E-01	3.9915E-05	2.2970E-05
1.3000E-02	7.1671E-01	-4.9000E-01	8.8753E-01	1.3005E-05	-3.7303E-01	9.6526E-06	4.3689E-06
1.3000E-02	8.7252E-01	-4.9000E-01	8.8297E-01	5.0110E-06	-3.7744E-01	5.3032E-07	-2.9498E-06
1.3000E-02	1.0623E+00	-4.9000E-01	8.8033E-01	3.8716E-06	-3.7989E-01	3.7331E-06	-4.2883E-07

Table E.4-1 Hot-wire velocity measurements at X/T = .013, Z/T = -.49.

File E69470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.428

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.128125E-03

Estimated momentum thickness Reynolds-number = 6621.272

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
1.6300E-02	3.8952E-03	-6.2000E-01	4.0383E-01	1.9973E-02	-4.2483E-01	2.0019E-02	7.7892E-03
1.6300E-02	4.6034E-03	-6.2000E-01	4.2284E-01	2.0513E-02	-4.2222E-01	2.0500E-02	8.5425E-03
1.6300E-02	5.6657E-03	-6.2000E-01	4.2609E-01	2.3056E-02	-4.6640E-01	2.3050E-02	1.1946E-02
1.6300E-02	6.7220E-03	-6.2000E-01	4.3546E-01	2.2555E-02	-4.8182E-01	2.2369E-02	1.1603E-02
1.6300E-02	8.1445E-03	-6.2000E-01	4.3600E-01	2.3621E-02	-5.1709E-01	2.2625E-02	1.3545E-02
1.6300E-02	9.9150E-03	-6.2000E-01	4.4241E-01	2.3083E-02	-5.3118E-01	2.2516E-02	1.4040E-02
1.6300E-02	1.2394E-02	-6.2000E-01	4.3728E-01	2.4945E-02	-5.5039E-01	2.3434E-02	1.6194E-02
1.6300E-02	1.4873E-02	-6.2000E-01	4.3776E-01	2.3384E-02	-5.5705E-01	2.3399E-02	1.5403E-02
1.6300E-02	1.8059E-02	-6.2000E-01	4.3860E-01	2.3309E-02	-5.6667E-01	2.2435E-02	1.4586E-02
1.6300E-02	2.0538E-02	-6.2000E-01	4.3784E-01	2.3447E-02	-5.7128E-01	2.2587E-02	1.5125E-02
1.6300E-02	2.6912E-02	-6.2000E-01	4.5236E-01	2.2741E-02	-5.7743E-01	2.1583E-02	1.3577E-02
1.6300E-02	3.2578E-02	-6.2000E-01	4.5904E-01	2.1924E-02	-5.6356E-01	2.1180E-02	1.2631E-02
1.6300E-02	3.9660E-02	-6.2000E-01	4.7264E-01	2.0486E-02	-5.4692E-01	2.0094E-02	1.0923E-02
1.6300E-02	4.7805E-02	-6.2000E-01	5.0510E-01	1.9241E-02	-5.1953E-01	1.9432E-02	9.3601E-03
1.6300E-02	5.8074E-02	-6.2000E-01	5.5044E-01	1.5336E-02	-4.7521E-01	1.6384E-02	4.5846E-03
1.6300E-02	7.0822E-02	-6.2000E-01	6.1066E-01	1.2837E-02	-4.1756E-01	1.5125E-02	3.4758E-03
1.6300E-02	8.5694E-02	-6.2000E-01	6.6281E-01	9.9555E-03	-3.6850E-01	1.1500E-02	1.1752E-03
1.6300E-02	1.0411E-01	-6.2000E-01	7.0532E-01	7.9251E-03	-3.3304E-01	8.7928E-03	1.0415E-03
1.6300E-02	1.2642E-01	-6.2000E-01	7.4457E-01	5.7636E-03	-3.0378E-01	5.2293E-03	6.1059E-04
1.6300E-02	1.5333E-01	-6.2000E-01	7.7747E-01	4.7535E-03	-2.9355E-01	3.5598E-03	6.1670E-04
1.6300E-02	1.8626E-01	-6.2000E-01	8.0869E-01	3.9637E-03	-2.8799E-01	2.7393E-03	5.4322E-04
1.6300E-02	2.2592E-01	-6.2000E-01	8.4637E-01	3.1724E-03	-2.7675E-01	2.1010E-03	5.0287E-04
1.6300E-02	2.7408E-01	-6.2000E-01	8.7820E-01	2.5354E-03	-2.7412E-01	1.7470E-03	4.1790E-04
1.6300E-02	3.3286E-01	-6.2000E-01	9.1138E-01	1.8596E-03	-2.7027E-01	1.2347E-03	3.5213E-04
1.6300E-02	4.0368E-01	-6.2000E-01	9.4149E-01	1.0329E-03	-2.7096E-01	6.0399E-04	1.8461E-04
1.6300E-02	4.9009E-01	-6.2000E-01	9.5951E-01	2.6549E-04	-2.7387E-01	1.4180E-04	3.1701E-05
1.6300E-02	5.9490E-01	-6.2000E-01	9.6116E-01	3.8126E-05	-2.8491E-01	2.1774E-05	1.0425E-05
1.6300E-02	7.2132E-01	-6.2000E-01	9.5194E-01	1.1392E-05	-3.0094E-01	6.9887E-06	2.5560E-06
1.6300E-02	8.7535E-01	-6.2000E-01	9.4613E-01	6.9693E-06	-3.1320E-01	-1.9293E-06	-1.9293E-06
1.6300E-02	1.0623E+00	-6.2000E-01	9.4301E-01	4.4800E-06	-3.1679E-01	3.9171E-06	-2.4331E-07

Table E.4-2 Hot-wire velocity measurements at X/T = .016, Z/T = -.62.

File E69470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.39463

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.129168E-03

Estimated momentum thickness Reynolds number = 6614.582

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
1.6000E-02	3.5411E-03	-7.4600E-01	4.2371E-01	6.5678E-03	-3.0461E-01	7.5794E-03	-1.0157E-03
1.6000E-02	4.2453E-03	-7.4600E-01	4.6464E-01	7.1090E-03	-3.1922E-01	9.6438E-03	6.5458E-04
1.6000E-02	4.9575E-03	-7.4600E-01	4.6422E-01	6.9776E-03	-3.9307E-01	8.5521E-03	6.0950E-04
1.6000E-02	6.3737E-03	-7.4600E-01	5.0730E-01	6.9577E-03	-3.7343E-01	1.0415E-02	2.1534E-03
1.6000E-02	7.4363E-03	-7.4600E-01	4.8256E-01	7.0302E-03	-4.4209E-01	8.7092E-03	2.0809E-03
1.6000E-02	9.2068E-03	-7.4600E-01	4.9440E-01	6.7591E-03	-4.6245E-01	7.6483E-03	1.9129E-03
1.6000E-02	1.1331E-02	-7.4600E-01	5.0329E-01	6.8704E-03	-4.6517E-01	7.6993E-03	2.2774E-03
1.6000E-02	1.3810E-02	-7.4600E-01	5.0548E-01	7.0595E-03	-4.7366E-01	7.7560E-03	2.5277E-03
1.6000E-02	1.6997E-02	-7.4600E-01	5.1568E-01	7.2350E-03	-4.7369E-01	7.4321E-03	2.6687E-03
1.6000E-02	2.0538E-02	-7.4600E-01	5.2847E-01	7.3973E-03	-4.6465E-01	7.4790E-03	2.7427E-03
1.6000E-02	2.5142E-02	-7.4600E-01	5.4322E-01	7.9385E-03	-4.5682E-01	7.5423E-03	3.0802E-03
1.6000E-02	3.0807E-02	-7.4600E-01	5.5626E-01	8.3770E-03	-4.4641E-01	7.7656E-03	3.2735E-03
1.6000E-02	3.7181E-02	-7.4600E-01	5.7666E-01	8.8191E-03	-4.2609E-01	8.2183E-03	3.7081E-03
1.6000E-02	4.5326E-02	-7.4600E-01	5.9854E-01	8.8988E-03	-4.0407E-01	8.0706E-03	3.3210E-03
1.6000E-02	5.5595E-02	-7.4600E-01	6.2204E-01	8.4723E-03	-3.8131E-01	7.1744E-03	2.5118E-03
1.6000E-02	6.7635E-02	-7.4600E-01	6.5042E-01	7.6493E-03	-3.5521E-01	5.9716E-03	1.7201E-03
1.6000E-02	8.2153E-02	-7.4600E-01	6.7799E-01	7.1517E-03	-3.3222E-01	5.7606E-03	1.4322E-03
1.6000E-02	1.0021E-01	-7.4600E-01	7.1169E-01	6.2304E-03	-3.1090E-01	4.4184E-03	7.1938E-04
1.6000E-02	1.2181E-01	-7.4600E-01	7.6079E-01	5.2799E-03	-2.9598E-01	2.8827E-03	-9.7124E-05
1.6000E-02	1.4637E-01	-7.4600E-01	7.7930E-01	4.5076E-03	-2.7369E-01	3.1837E-03	4.5331E-04
1.6000E-02	1.8059E-01	-7.4600E-01	7.8438E-01	4.4642E-03	-2.6975E-01	2.9373E-03	3.2088E-04
1.6000E-02	2.1990E-01	-7.4600E-01	8.2245E-01	3.7623E-03	-2.5244E-01	2.6907E-03	4.8863E-04
1.6000E-02	2.6806E-01	-7.4600E-01	8.6335E-01	3.1700E-03	-2.3936E-01	2.3455E-03	4.4933E-04
1.6000E-02	3.2613E-01	-7.4600E-01	9.0650E-01	2.4698E-03	-2.3004E-01	1.8419E-03	4.0359E-04
1.6000E-02	3.9731E-01	-7.4600E-01	9.4698E-01	1.6225E-03	-2.2497E-01	9.8513E-04	2.4595E-04
1.6000E-02	4.8336E-01	-7.4600E-01	9.7860E-01	6.7741E-04	-2.2576E-01	3.9368E-04	9.3363E-05
1.6000E-02	5.8853E-01	-7.4600E-01	9.9331E-01	8.4713E-05	-2.3269E-01	6.5860E-05	1.5554E-05
1.6000E-02	7.1671E-01	-7.4600E-01	9.9018E-01	1.4611E-05	-2.4609E-01	7.1681E-06	3.1074E-06
1.6000E-02	8.7252E-01	-7.4600E-01	9.8678E-01	6.4133E-06	-2.5140E-01	3.6023E-06	6.4779E-07
1.6000E-02	1.0623E+00	-7.4600E-01	9.8465E-01	4.3963E-06	-2.6118E-01	2.6626E-06	-6.2214E-07

Table E.4-3 Hot-wire velocity measurements at X/T = .016, Z/T = -.74.

File E67470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.4248

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.128225E-03

Estimated momentum thickness Reynolds number = 6620.629

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
9.0000E-03	2.8329E-03	-8.7900E-01	4.1553E-01	4.9583E-03	-2.5795E-01	4.3017E-03	-1.7958E-03
9.0000E-03	3.1870E-03	-8.7900E-01	4.3945E-01	5.0640E-03	-2.7113E-01	4.3077E-03	-1.7667E-03
9.0000E-03	3.6952E-03	-8.7900E-01	4.5591E-01	4.8936E-03	-2.9410E-01	4.5323E-03	-1.4315E-03
9.0000E-03	4.9575E-03	-8.7900E-01	4.8524E-01	4.6556E-03	-3.3321E-01	4.5574E-03	-8.8961E-04
9.0000E-03	6.3739E-03	-8.7900E-01	5.1692E-01	4.6076E-03	-3.6231E-01	4.7775E-03	7.1227E-05
9.0000E-03	7.7904E-03	-8.7900E-01	5.2848E-01	4.4448E-03	-3.7461E-01	4.7476E-03	3.1905E-04
9.0000E-03	9.5609E-03	-8.7900E-01	5.3769E-01	4.5178E-03	-3.8230E-01	4.5512E-03	6.0412E-04
9.0000E-03	1.1686E-02	-8.7900E-01	5.4614E-01	4.7620E-03	-3.8903E-01	4.7550E-03	1.1418E-03
9.0000E-03	1.4518E-02	-8.7900E-01	5.5793E-01	4.9549E-03	-3.9337E-01	4.6483E-03	1.2868E-03
9.0000E-03	1.7705E-02	-8.7900E-01	5.6873E-01	5.2345E-03	-3.9186E-01	5.0279E-03	1.8242E-03
9.0000E-03	2.1955E-02	-8.7900E-01	5.8231E-01	5.2409E-03	-3.8454E-01	4.7049E-03	1.6098E-03
9.0000E-03	2.6912E-02	-8.7900E-01	5.9569E-01	5.5401E-03	-3.7574E-01	4.7863E-03	1.8547E-03
9.0000E-03	3.2932E-02	-8.7900E-01	6.1443E-01	5.8015E-03	-3.6066E-01	4.7441E-03	1.7483E-03
9.0000E-03	4.0368E-02	-8.7900E-01	6.2930E-01	5.8099E-03	-3.4662E-01	4.6826E-03	1.6126E-03
9.0000E-03	4.9575E-02	-8.7900E-01	6.5122E-01	5.5950E-03	-3.2663E-01	3.9791E-03	8.9019E-04
9.0000E-03	6.0907E-02	-8.7900E-01	6.7311E-01	5.6458E-03	-3.0951E-01	3.8002E-03	8.1599E-04
9.0000E-03	7.4717E-02	-8.7900E-01	6.9465E-01	5.4367E-03	-2.9255E-01	3.5019E-03	5.1153E-04
9.0000E-03	9.1714E-02	-8.7900E-01	7.2236E-01	5.1308E-03	-2.7907E-01	3.1663E-03	2.7176E-04
9.0000E-03	1.1261E-01	-8.7900E-01	7.4963E-01	4.6604E-03	-2.6628E-01	3.3423E-03	3.2851E-04
9.0000E-03	1.43810E-01	-8.7900E-01	7.7726E-01	4.4515E-03	-2.4915E-01	3.1811E-03	5.1065E-04
9.0000E-03	1.6926E-01	-8.7900E-01	8.1133E-01	3.9908E-03	-2.3459E-01	2.7318E-03	3.1417E-04
9.0000E-03	2.0751E-01	-8.7900E-01	8.4466E-01	3.6480E-03	-2.2454E-01	2.0272E-03	1.5002E-04
9.0000E-03	2.5460E-01	-8.7900E-01	8.8335E-01	3.0621E-03	-2.1009E-01	1.9670E-03	3.0291E-04
9.0000E-03	3.1232E-01	-8.7900E-01	9.2386E-01	2.3743E-03	-1.9966E-01	1.4539E-03	2.6250E-04
9.0000E-03	3.8314E-01	-8.7900E-01	9.6422E-01	1.5272E-03	-1.9547E-01	9.5778E-04	2.1837E-04
9.0000E-03	4.6955E-01	-8.7900E-01	9.9742E-01	5.8245E-04	-1.8969E-01	2.4986E-04	5.0274E-05
9.0000E-03	5.7613E-01	-8.7900E-01	1.0132E+00	6.8523E-05	-1.9236E-01	4.3560E-05	8.5365E-06
9.0000E-03	7.0644E-01	-8.7900E-01	1.0099E+00	1.2252E-05	-2.0326E-01	7.1704E-06	1.5765E-06
9.0000E-03	8.6615E-01	-8.7900E-01	1.0067E+00	6.0697E-06	-2.1011E-01	4.2476E-06	4.7490E-07
9.0000E-03	1.0623E+00	-8.7900E-01	1.0042E+00	4.3026E-06	-2.1436E-01	5.8561E-06	-5.9191E-07

Table E.4-4 Hot-wire velocity measurements at X/T = .019, Z/T = -.879.

File E66470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.49613

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.125999E-03

Estimated momentum thickness Reynolds number = 6634.923

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	u/Uref2
2.8300E-01	3.5411E-03	-1.1320E+00	4.8951E-01	6.1907E-03	-2.1870E-01	2.9428E-03	-1.0127E-03
2.8300E-02	4.2493E-03	-1.1320E+00	4.9727E-01	5.7724E-03	-2.3719E-01	2.7654E-03	-1.0156E-03
2.8300E-02	4.9575E-03	-1.1320E+00	5.2285E-01	5.4825E-03	-2.4407E-01	2.2923E-03	-1.1225E-03
2.8300E-02	6.3739E-03	-1.1320E+00	5.6262E-01	4.9779E-03	-2.5466E-01	2.9640E-03	-5.1167E-04
2.8300E-02	7.4363E-03	-1.1320E+00	5.7496E-01	4.6918E-03	-2.5635E-01	2.8512E-03	-4.6831E-04
2.8300E-02	9.2068E-03	-1.1320E+00	5.9142E-01	4.4563E-03	-2.5637E-01	3.4652E-03	2.3395E-05
2.8300E-02	1.1331E-02	-1.1320E+00	6.0590E-01	4.2830E-03	-2.5814E-01	2.9974E-03	-5.1470E-05
2.8300E-02	1.3810E-02	-1.1320E+00	6.2198E-01	4.1304E-03	-2.6114E-01	3.2161E-03	1.6468E-04
2.8300E-02	1.6997E-02	-1.1320E+00	6.3584E-01	4.0910E-03	-2.6104E-01	3.1772E-03	3.7173E-04
2.8300E-02	2.0538E-02	-1.1320E+00	6.4757E-01	4.0983E-03	-2.5711E-01	2.4972E-03	1.2136E-04
2.8300E-02	2.5142E-02	-1.1320E+00	6.6144E-01	4.1594E-03	-2.5179E-01	3.1784E-03	4.6690E-04
2.8300E-02	3.0907E-02	-1.1320E+00	6.7566E-01	4.3396E-03	-2.4435E-01	3.0363E-03	4.4460E-04
2.8300E-02	3.7181E-02	-1.1320E+00	6.8647E-01	4.4758E-03	-2.3872E-01	2.7494E-03	2.1756E-04
2.8300E-02	4.5326E-02	-1.1320E+00	7.0333E-01	4.6165E-03	-2.3465E-01	2.8446E-03	2.8155E-04
2.8300E-02	5.5241E-02	-1.1320E+00	7.2059E-01	4.7324E-03	-2.2655E-01	2.7066E-03	2.0598E-04
2.8300E-02	6.7635E-02	-1.1320E+00	7.3882E-01	4.7029E-03	-2.1169E-01	3.0667E-03	3.0040E-04
2.8300E-02	8.2153E-02	-1.1320E+00	7.5368E-01	4.7496E-03	-1.9760E-01	2.5319E-03	2.7939E-04
2.8300E-02	1.0039E-01	-1.1320E+00	7.7989E-01	4.6703E-03	-1.9442E-01	2.8367E-03	2.3059E-04
2.8300E-02	1.2181E-01	-1.1320E+00	8.0757E-01	4.6328E-03	-1.8622E-01	2.6326E-03	2.8700E-04
2.8300E-02	1.4837E-01	-1.1320E+00	8.2983E-01	4.3475E-03	-1.7518E-01	2.9083E-03	4.3343E-04
2.8300E-02	1.8059E-01	-1.1320E+00	8.5448E-01	4.0355E-03	-1.6775E-01	2.0380E-03	2.3548E-04
2.8300E-02	2.1990E-01	-1.1320E+00	8.8911E-01	3.4753E-03	-1.5722E-01	2.0343E-03	2.6146E-04
2.8300E-02	2.6806E-01	-1.1320E+00	9.2341E-01	2.7918E-03	-1.4440E-01	2.0656E-03	3.3515E-04
2.8300E-02	3.2613E-01	-1.1320E+00	9.6213E-01	2.0884E-03	-1.3372E-01	1.3953E-03	2.0729E-04
2.8300E-02	3.9731E-01	-1.1320E+00	9.9794E-01	1.2342E-03	-1.2790E-01	7.6085E-04	8.9576E-05
2.8300E-02	4.8336E-01	-1.1320E+00	1.0274E+00	4.1010E-04	-1.2246E-01	1.7732E-04	1.6465E-05
2.8300E-02	7.1671E-01	-1.1320E+00	1.0419E+00	1.2901E-05	-1.2467E-01	6.4832E-06	2.2717E-06
2.8300E-02	8.7252E-01	-1.1320E+00	1.0353E+00	6.8858E-06	-1.2914E-01	7.8861E-06	2.0007E-06
2.8300E-02	1.0623E+00	-1.1320E+00	1.0336E+00	4.7395E-06	-1.3194E-01	3.8458E-06	-3.9071E-07

Table E.4-5 Hot-wire velocity measurements at X/T = .028, Z/T = -1.132.

E.5 HOT-WIRE MEASUREMENTS IN PLANE F

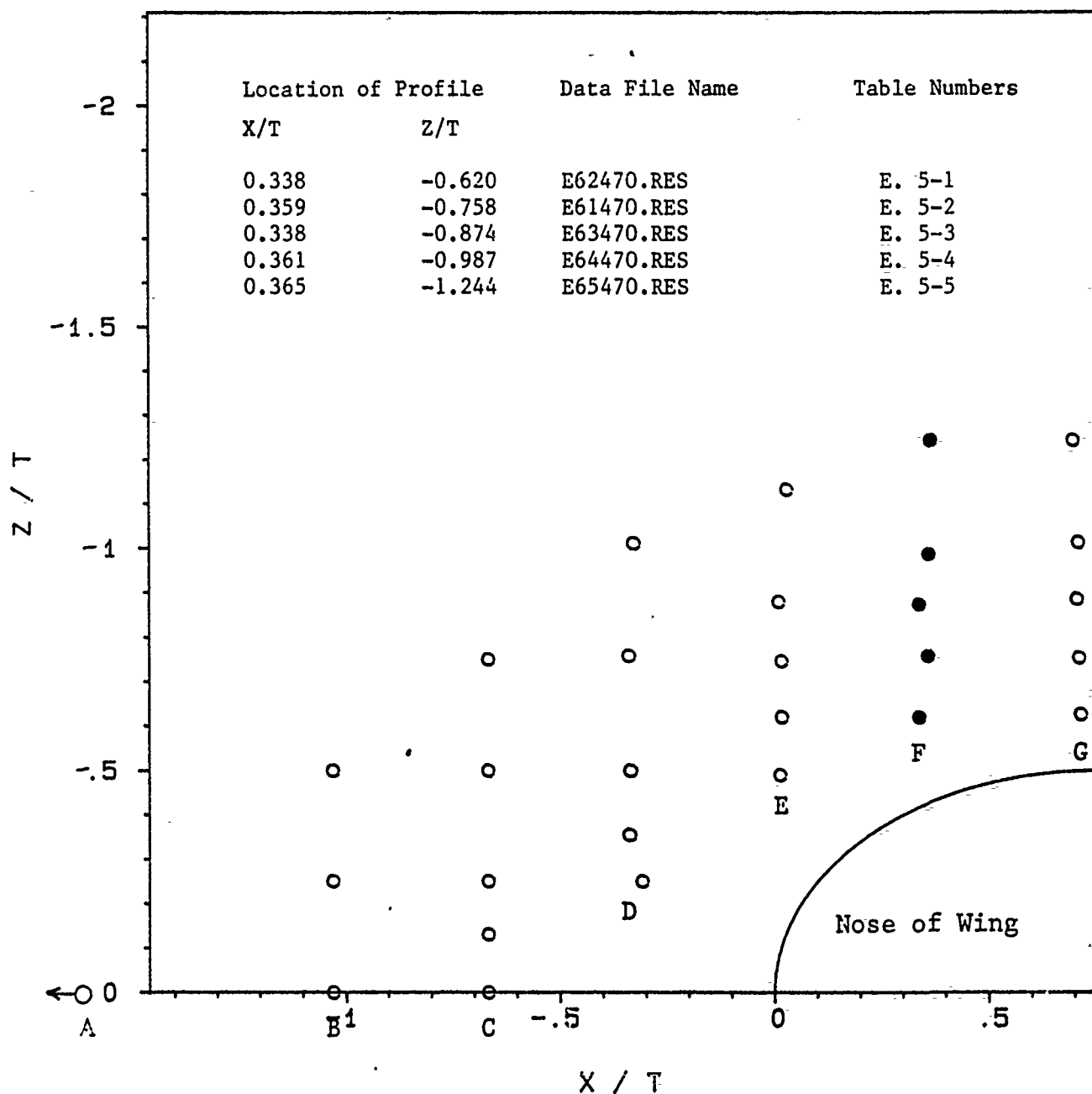


Figure E.5-1 Location of hot-wire profiles measured in plane F.

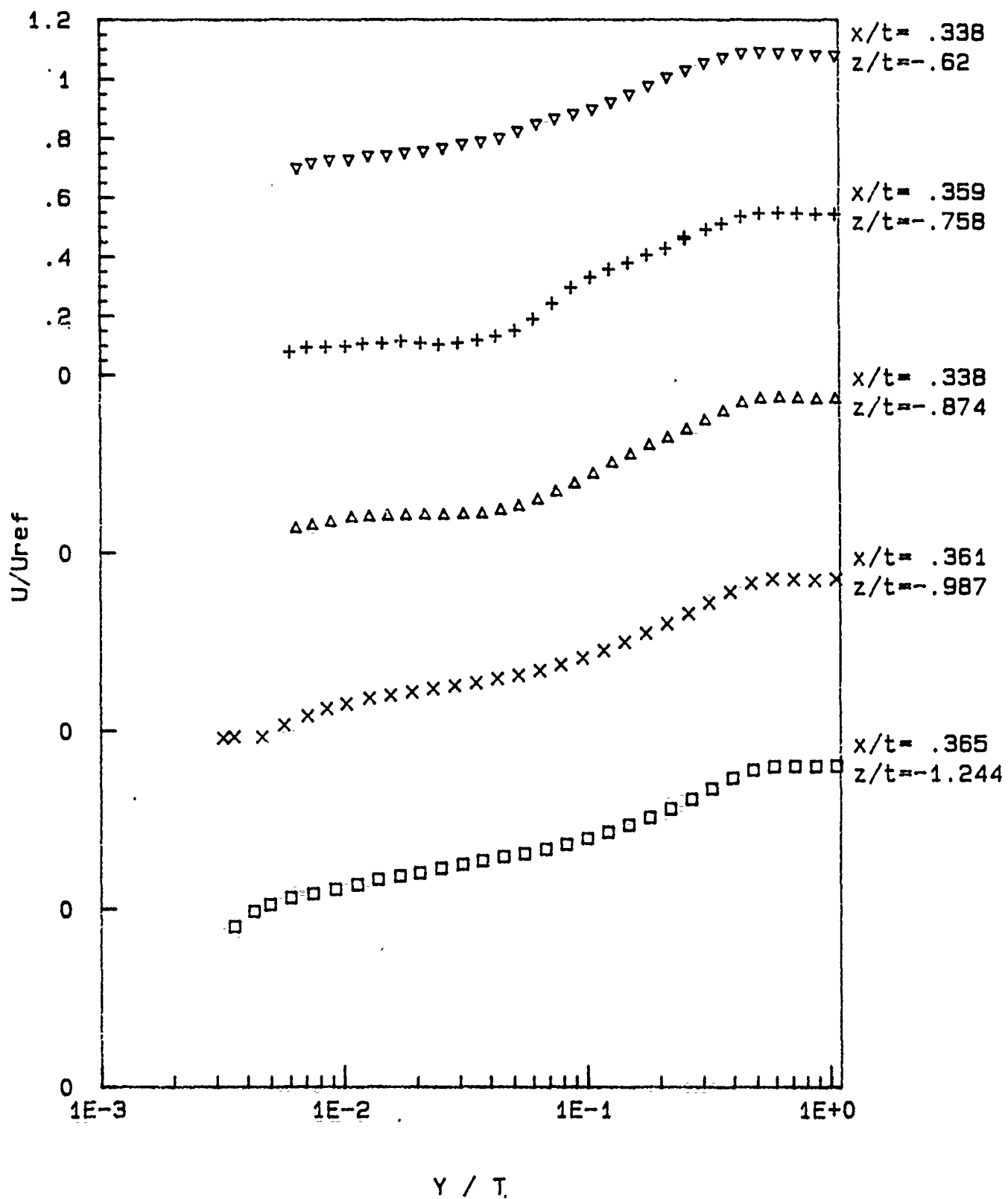


FIGURE E.5-2 Profiles of Mean Velocity Component U, Plane F

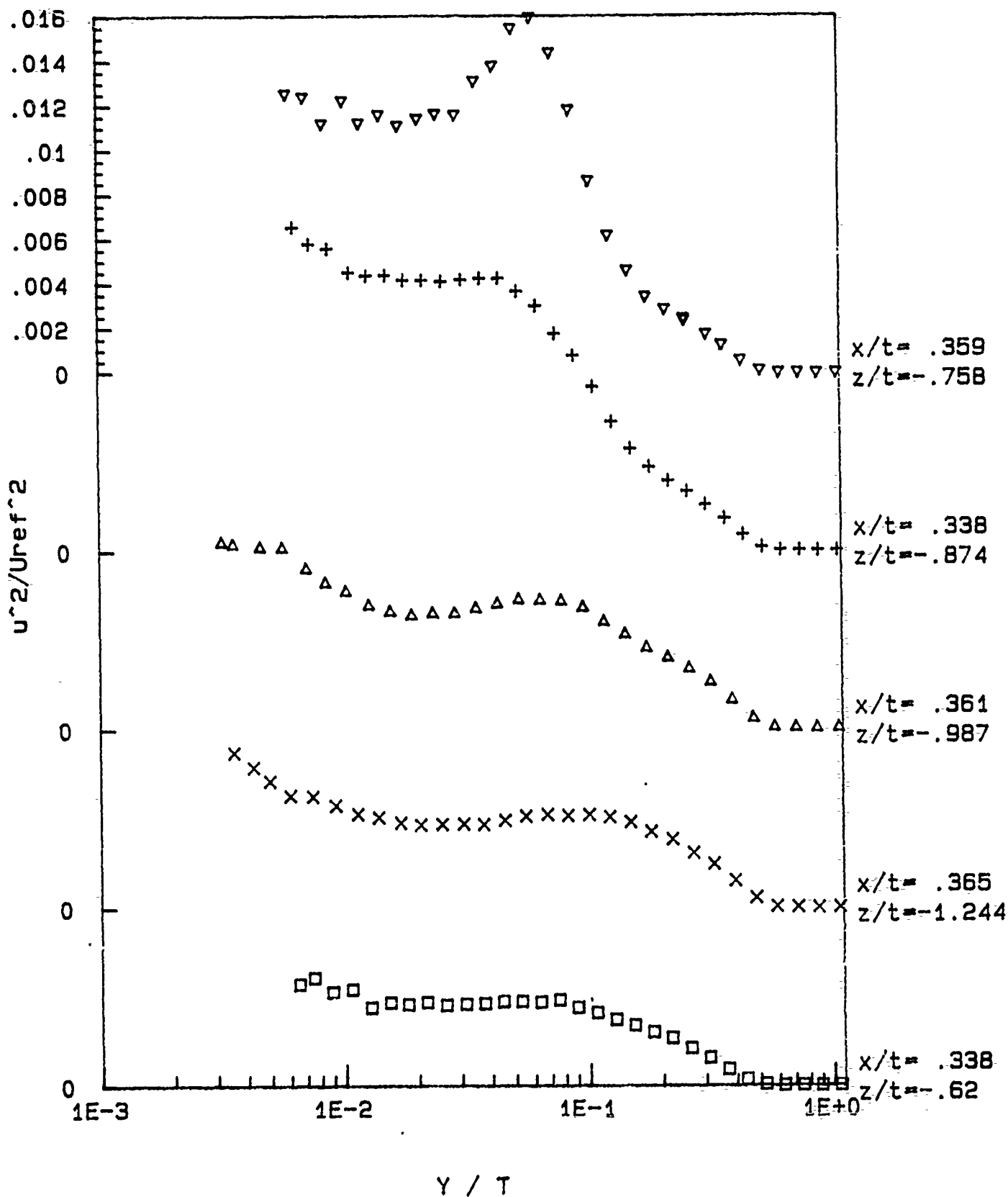


FIGURE E.5-3 Profiles of the U Component of Turbulence Normal Stress, Plane F

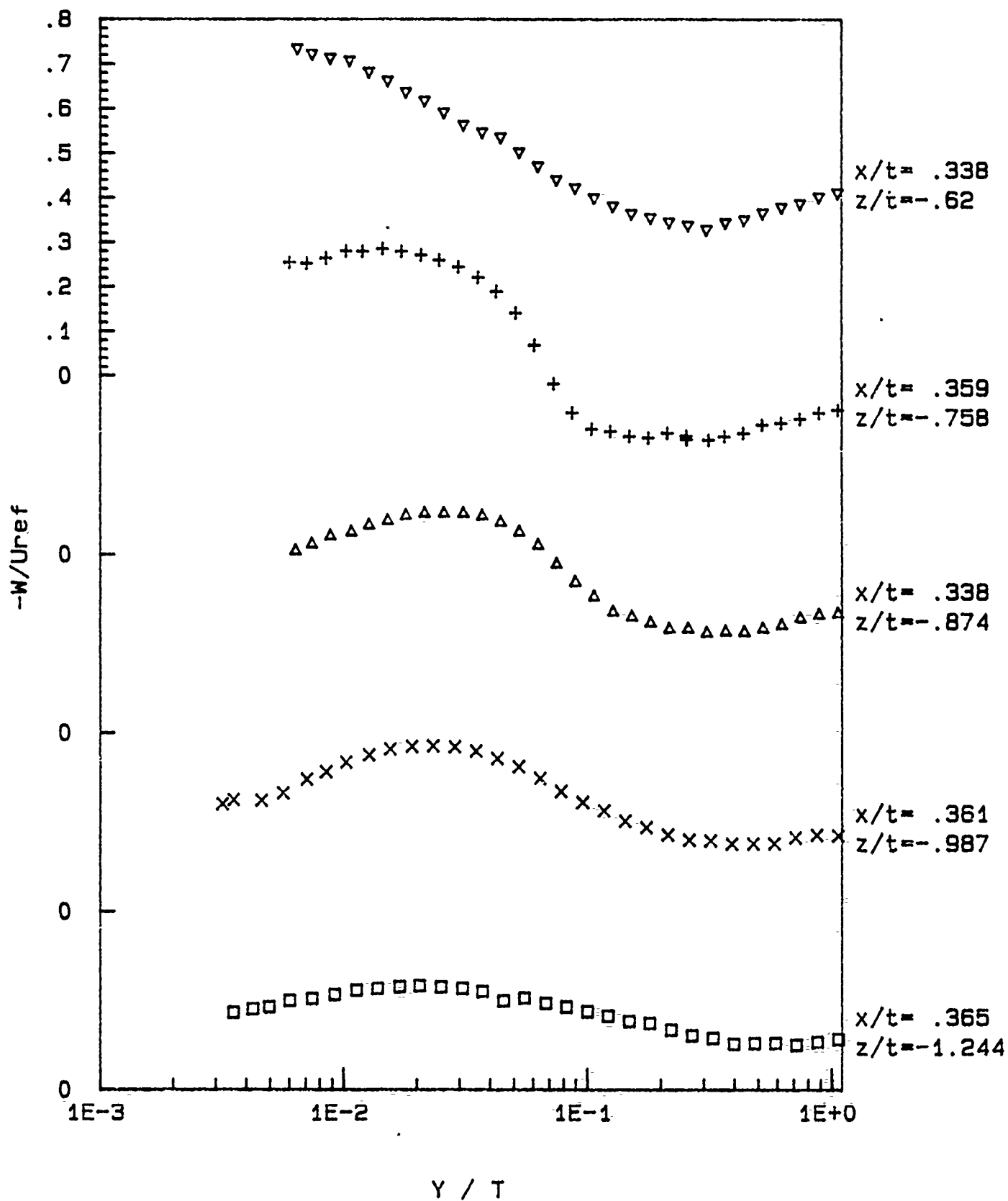


FIGURE E.5-4 Profiles of Mean-Velocity Component W, Plane F

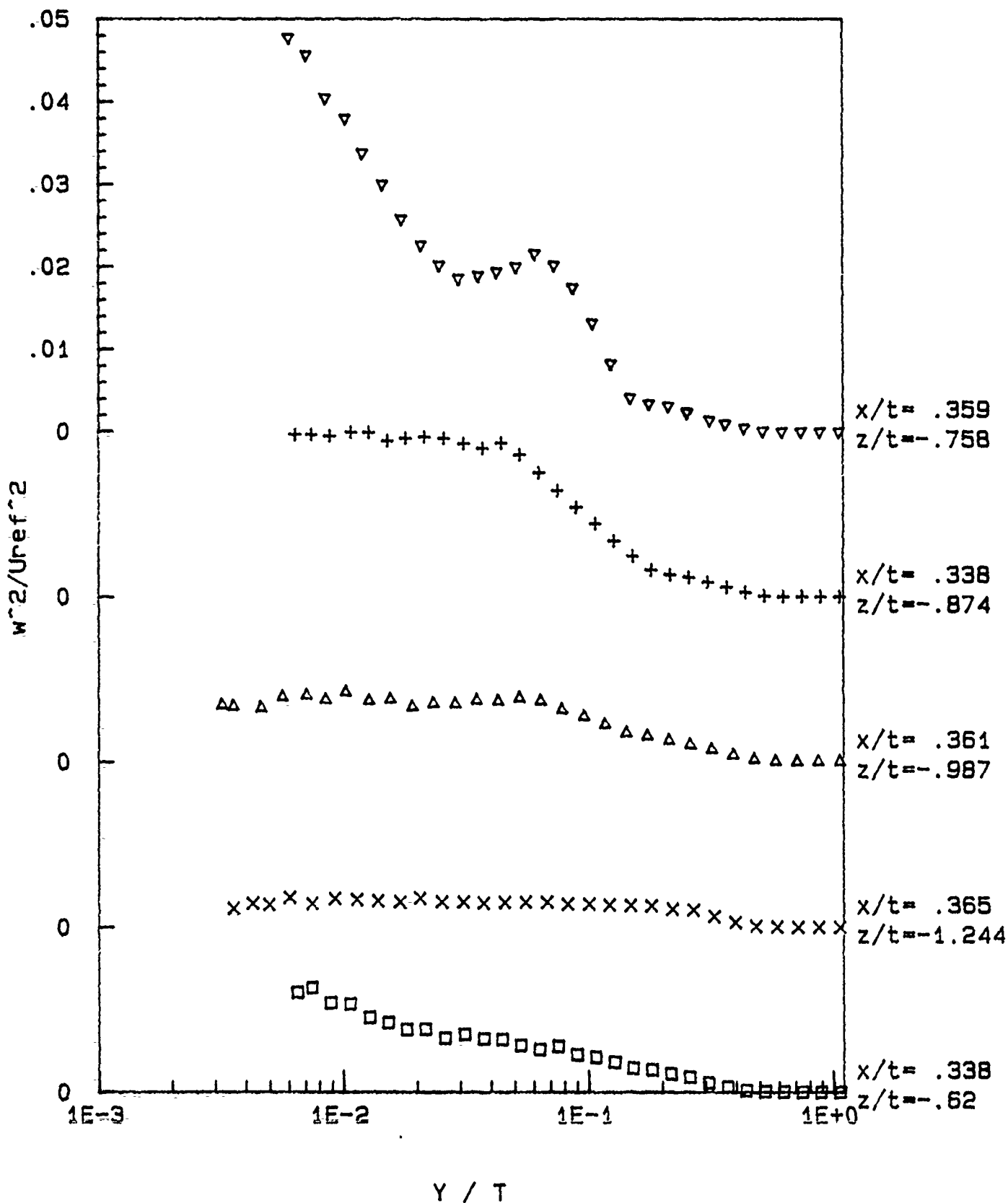


FIGURE E.5-5 Profiles of the W Component of Turbulence Normal Stress, Plane F

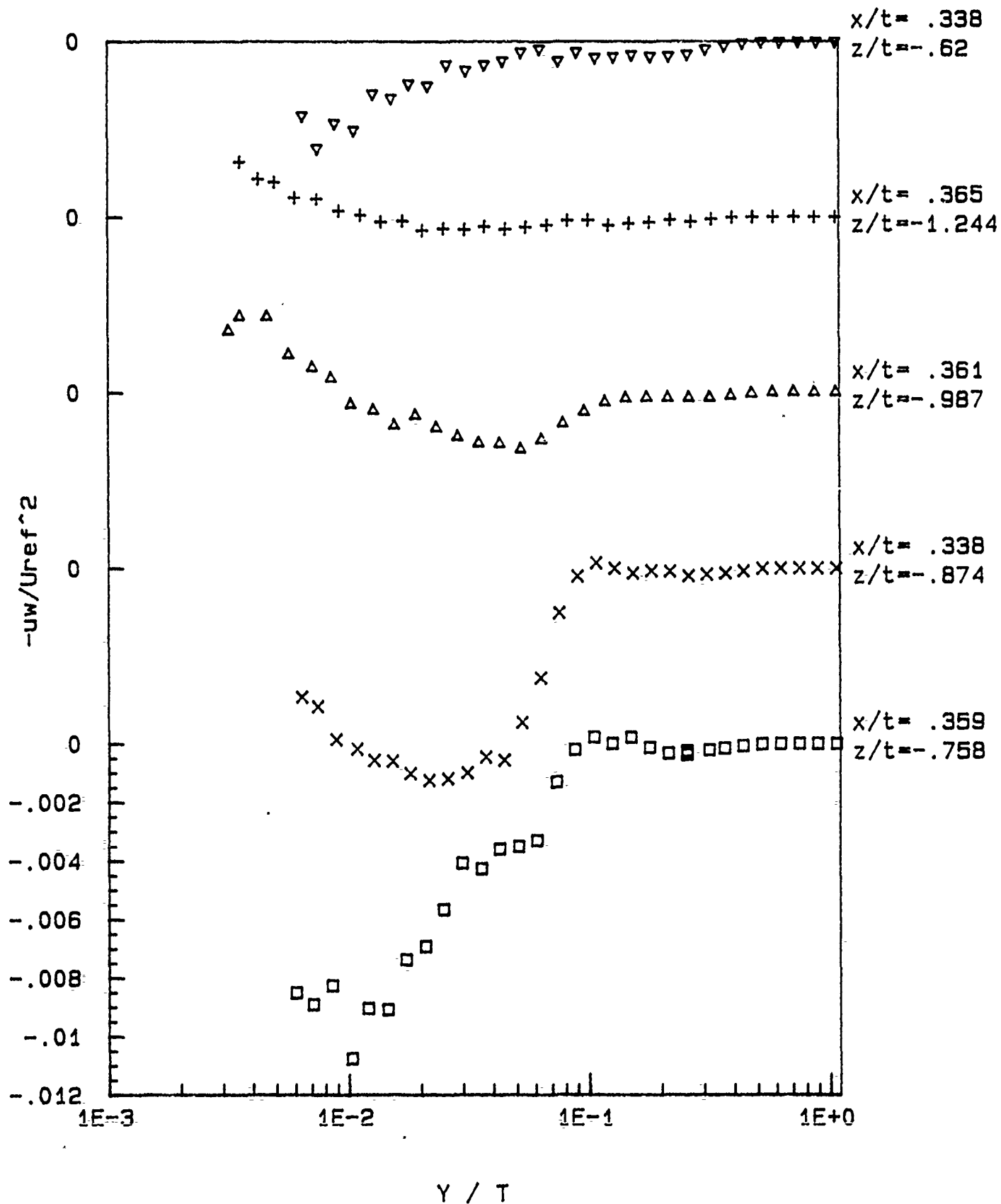


FIGURE E.5-6 Profiles of the UW Reynolds Shear Stress, Plane F

File E62470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94600

Velocity of undisturbed free stream (Uref, in m/s) = 26.909

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.11326E-03

Estimated momentum thickness Reynolds number = 6717.504

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
3.3800E-01	6.4802E-03	-6.2000E-01	7.0222E-01	4.5746E-03	-7.3537E-01	1.2068E-02	2.5310E-03
3.3800E-01	7.4363E-03	-6.2000E-01	7.1920E-01	4.8678E-03	-7.2287E-01	1.2644E-02	3.6491E-03
3.3800E-01	8.8527E-03	-6.2000E-01	7.2949E-01	4.2215E-03	-7.1449E-01	1.0799E-02	2.7840E-03
3.3800E-01	1.0623E-02	-6.2000E-01	7.3026E-01	4.3329E-03	-7.0839E-01	1.0676E-02	3.0304E-03
3.3800E-01	1.2748E-02	-6.2000E-01	7.4305E-01	3.5179E-03	-6.8334E-01	9.0385E-03	1.7768E-03
3.3800E-01	1.5227E-02	-6.2000E-01	7.4489E-01	3.7445E-03	-6.6342E-01	8.4326E-03	1.9345E-03
3.3800E-01	1.8059E-02	-6.2000E-01	7.5388E-01	3.6651E-03	-6.3728E-01	7.5908E-03	1.4322E-03
3.3800E-01	2.1601E-02	-6.2000E-01	7.5948E-01	3.7493E-03	-6.1862E-01	7.6421E-03	1.5055E-03
3.3800E-01	2.5850E-02	-6.2000E-01	7.7001E-01	3.6257E-03	-5.9235E-01	6.5616E-03	7.8732E-04
3.3800E-01	3.1161E-02	-6.2000E-01	7.8306E-01	3.6629E-03	-5.6426E-01	7.0155E-03	9.7957E-04
3.3800E-01	3.7181E-02	-6.2000E-01	7.9162E-01	3.6994E-03	-5.4747E-01	6.4683E-03	7.8785E-04
3.3800E-01	4.4263E-02	-6.2000E-01	8.0325E-01	3.7779E-03	-5.3651E-01	6.4034E-03	6.5371E-04
3.3800E-01	5.2762E-02	-6.2000E-01	8.2732E-01	3.7839E-03	-5.0306E-01	5.6871E-03	3.5076E-04
3.3800E-01	6.3031E-02	-6.2000E-01	8.5127E-01	3.7613E-03	-4.7115E-01	5.2006E-03	2.4609E-04
3.3800E-01	7.5071E-02	-6.2000E-01	8.6905E-01	3.8545E-03	-4.4091E-01	5.5760E-03	6.5702E-04
3.3800E-01	8.9589E-02	-6.2000E-01	8.8407E-01	3.5202E-03	-4.2301E-01	4.5448E-03	3.5250E-04
3.3800E-01	1.0694E-01	-6.2000E-01	9.0047E-01	3.2719E-03	-4.0063E-01	4.2582E-03	5.5196E-04
3.3800E-01	1.2783E-01	-6.2000E-01	9.2491E-01	2.9778E-03	-3.8230E-01	3.6431E-03	5.1640E-04
3.3800E-01	1.5227E-01	-6.2000E-01	9.5076E-01	2.7037E-03	-3.6495E-01	2.9174E-03	4.4190E-04
3.3800E-01	1.8201E-01	-6.2000E-01	9.7888E-01	2.4092E-03	-3.5568E-01	2.7000E-03	5.0260E-04
3.3800E-01	2.1707E-01	-6.2000E-01	1.0085E+00	2.1383E-03	-3.4626E-01	2.2037E-03	4.8903E-04
3.3800E-01	2.5885E-01	-6.2000E-01	1.0318E+00	1.6824E-03	-3.3897E-01	1.8221E-03	4.3846E-04
3.3800E-01	3.0878E-01	-6.2000E-01	1.0567E+00	1.2440E-03	-3.2937E-01	1.0827E-03	2.5147E-04
3.3800E-01	3.6827E-01	-6.2000E-01	1.0747E+00	7.2249E-04	-3.4529E-01	6.0196E-04	1.4501E-04
3.3800E-01	4.3945E-01	-6.2000E-01	1.0895E+00	2.7254E-04	-3.5146E-01	1.9292E-04	5.3244E-05
3.3800E-01	5.2443E-01	-6.2000E-01	1.0935E+00	5.4716E-05	-3.6716E-01	6.1860E-05	1.9837E-05
3.3800E-01	6.2571E-01	-6.2000E-01	1.0906E+00	2.2269E-05	-3.7955E-01	2.6011E-05	1.4680E-05
3.3800E-01	7.4646E-01	-6.2000E-01	1.0875E+00	1.0253E-05	-3.8816E-01	3.0886E-06	5.6260E-06
3.3800E-01	8.9023E-01	-6.2000E-01	1.0836E+00	1.2393E-05	-4.0261E-01	7.5395E-06	4.5699E-06
3.3800E-01	1.0623E+00	-6.2000E-01	1.0811E+00	1.0227E-05	-4.1235E-01	7.4924E-06	4.0355E-06

Table E.5-1 Hot-wire velocity measurements at X/T = .338, Z/T = -.62.

File E61470.RES
 Velocity measurements obtained using the single-sensor hot wire probe
 Flow temperature (degrees centigrade) = 23
 density (kilograms per meter cubed) = 1.106
 viscosity (meters squared per second) = 1.65237E-05
 Atmospheric pressure (Pascals) = 94000
 Velocity of undisturbed free stream (Uref, in m/s) = 27.5525
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093865E-03
 Estimated momentum thickness-Reynolds number = 6845.715

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
3.5900E-01	6.0198E-03	-7.5800E-01	6.7900E-01	1.2571E-02	-6.5456E-01	4.7781E-02	8.5136E-03
3.5900E-01	7.0822E-03	-7.5800E-01	6.9503E-01	1.2418E-02	-6.5238E-01	4.5655E-02	8.9163E-03
3.5900E-01	8.4986E-03	-7.5800E-01	6.9540E-01	1.1216E-02	-6.6428E-01	4.0448E-02	8.2670E-03
3.5900E-01	1.0269E-02	-7.5800E-01	6.9332E-01	1.2239E-02	-6.8029E-01	3.7992E-02	1.0762E-02
3.5900E-01	1.2040E-02	-7.5800E-01	7.0714E-01	1.1241E-02	-6.7975E-01	3.3779E-02	9.0463E-03
3.5900E-01	1.4518E-02	-7.5800E-01	7.0870E-01	1.1603E-02	-6.8531E-01	2.9977E-02	9.0900E-03
3.5900E-01	1.7351E-02	-7.5800E-01	7.1583E-01	1.1120E-02	-6.7920E-01	2.5789E-02	7.3678E-03
3.5900E-01	2.0892E-02	-7.5800E-01	7.0939E-01	1.1430E-02	-6.7107E-01	2.2632E-02	6.9230E-03
3.5900E-01	2.4788E-02	-7.5800E-01	7.0456E-01	1.1644E-02	-6.5941E-01	2.0203E-02	5.6589E-03
3.5900E-01	2.9745E-02	-7.5800E-01	7.0977E-01	1.1596E-02	-6.4415E-01	1.8609E-02	4.0775E-03
3.5900E-01	3.5745E-02	-7.5800E-01	7.1881E-01	1.3121E-02	-6.2051E-01	1.8943E-02	4.2697E-03
3.5900E-01	4.2493E-02	-7.5800E-01	7.3265E-01	1.3797E-02	-5.8955E-01	1.9394E-02	3.5960E-03
3.5900E-01	5.0992E-02	-7.5800E-01	7.5184E-01	1.5468E-02	-5.4051E-01	2.0000E-02	3.4993E-03
3.5900E-01	6.0907E-02	-7.5800E-01	7.8997E-01	1.5973E-02	-4.6847E-01	2.1591E-02	3.3002E-03
3.5900E-01	7.2946E-02	-7.5800E-01	8.4275E-01	1.4377E-02	-3.8250E-01	2.0176E-02	1.3050E-03
3.5900E-01	8.7110E-02	-7.5800E-01	8.9597E-01	1.1834E-02	-3.1786E-01	1.7467E-02	2.0480E-04
3.5900E-01	1.0446E-01	-7.5800E-01	9.3124E-01	8.6334E-03	-2.8103E-01	1.3150E-02	-2.1974E-04
3.5900E-01	1.2465E-01	-7.5800E-01	9.5811E-01	6.1864E-03	-2.7564E-01	8.2532E-03	-3.6722E-06
3.5900E-01	1.4908E-01	-7.5800E-01	9.8052E-01	4.6059E-03	-2.6462E-01	4.1102E-03	-2.1959E-04
3.5900E-01	1.7812E-01	-7.5800E-01	1.0058E+00	3.4349E-03	-2.6155E-01	3.3865E-03	1.3152E-04
3.5900E-01	2.1317E-01	-7.5800E-01	1.0284E+00	2.8607E-03	-2.7238E-01	3.0973E-03	3.2797E-04
3.5900E-01	2.5496E-01	-7.5800E-01	1.0631E+00	2.4523E-03	-2.6594E-01	2.2415E-03	2.5118E-04
3.5900E-01	2.5496E-01	-7.5800E-01	1.0681E+00	2.4329E-03	-2.5879E-01	2.3119E-03	3.4164E-04
3.5900E-01	2.5496E-01	-7.5800E-01	1.0613E+00	2.3812E-03	-2.5782E-01	2.4183E-03	3.8027E-04
3.5900E-01	3.1445E-01	-7.5800E-01	1.0930E+00	1.7277E-03	-2.5616E-01	1.3883E-03	2.1743E-04
3.5900E-01	3.6402E-01	-7.5800E-01	1.1129E+00	1.2594E-03	-2.6438E-01	9.3894E-04	1.6220E-04
3.5900E-01	4.3520E-01	-7.5800E-01	1.1366E+00	5.6697E-04	-2.7190E-01	4.3204E-04	8.0101E-05
3.5900E-01	5.2018E-01	-7.5800E-01	1.1478E+00	1.2065E-04	-2.9085E-01	9.3150E-05	1.6025E-05
3.5900E-01	6.2181E-01	-7.5800E-01	1.1494E+00	2.4253E-05	-2.9469E-01	9.2599E-06	4.4506E-06
3.5900E-01	7.4327E-01	-7.5800E-01	1.1479E+00	9.7508E-06	-3.0416E-01	7.2469E-06	1.9386E-06
3.5900E-01	8.8846E-01	-7.5800E-01	1.1459E+00	7.0951E-06	-3.1790E-01	3.1248E-06	2.6121E-08
3.5900E-01	1.0623E+00	-7.5800E-01	1.1444E+00	6.2952E-06	-3.2432E-01	1.5646E-06	-1.2568E-06

Table E.5-2 Hot-wire velocity measurements at X/T = .359, Z/T = -.758.

File E63470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.6927

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.089711E-03

Estimated momentum thickness Reynolds number = 6873.566

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
3.3800E-01	6.3739E-03	-8.7400E-01	6.8157E-01	1.4536E-02	-4.0739E-01	1.9686E-02	4.4024E-03
3.3800E-01	7.4363E-03	-8.7400E-01	6.9220E-01	1.3786E-02	-4.2242E-01	1.9653E-02	4.7307E-03
3.3800E-01	8.8527E-03	-8.7400E-01	7.0244E-01	1.3573E-02	-4.4061E-01	1.9489E-02	5.8576E-03
3.3800E-01	1.0800E-02	-8.7400E-01	7.1795E-01	1.2490E-02	-4.4937E-01	1.9925E-02	6.1856E-03
3.3800E-01	1.2748E-02	-8.7400E-01	7.2088E-01	1.2362E-02	-4.6502E-01	1.9920E-02	6.5659E-03
3.3800E-01	1.5227E-02	-8.7400E-01	7.2382E-01	1.2370E-02	-4.7535E-01	1.8895E-02	6.5913E-03
3.3800E-01	1.8059E-02	-8.7400E-01	7.2587E-01	1.2160E-02	-4.8587E-01	1.9215E-02	7.0145E-03
3.3800E-01	2.1601E-02	-8.7400E-01	7.2814E-01	1.2139E-02	-4.9180E-01	1.9386E-02	7.2552E-03
3.3800E-01	2.5850E-02	-8.7400E-01	7.2709E-01	1.2098E-02	-4.9189E-01	1.9219E-02	7.1965E-03
3.3800E-01	3.1161E-02	-8.7400E-01	7.2883E-01	1.2166E-02	-4.9164E-01	1.8587E-02	6.9852E-03
3.3800E-01	3.7181E-02	-8.7400E-01	7.3118E-01	1.2231E-02	-4.8570E-01	1.7997E-02	6.4496E-03
3.3800E-01	4.4263E-02	-8.7400E-01	7.4375E-01	1.2236E-02	-4.7127E-01	1.8642E-02	6.5593E-03
3.3800E-01	5.2762E-02	-8.7400E-01	7.5745E-01	1.1642E-02	-4.4944E-01	1.7214E-02	5.2588E-03
3.3800E-01	6.3031E-02	-8.7400E-01	7.7898E-01	1.0984E-02	-4.1951E-01	1.5056E-02	3.7398E-03
3.3800E-01	7.5071E-02	-8.7400E-01	8.0521E-01	9.7413E-03	-3.7712E-01	1.2862E-02	1.5256E-03
3.3800E-01	8.9589E-02	-8.7400E-01	8.3333E-01	8.7624E-03	-3.3694E-01	1.0844E-02	2.7222E-04
3.3800E-01	1.0694E-01	-8.7400E-01	8.6623E-01	7.3615E-03	-3.0403E-01	8.8442E-03	-1.8067E-04
3.3800E-01	1.2783E-01	-8.7400E-01	9.0291E-01	5.7984E-03	-2.6991E-01	6.7830E-03	3.4676E-06
3.3800E-01	1.5227E-01	-8.7400E-01	9.3124E-01	4.5753E-03	-2.5899E-01	4.9107E-03	1.6949E-04
3.3800E-01	1.8201E-01	-8.7400E-01	9.6235E-01	3.7659E-03	-2.4575E-01	3.2261E-03	8.6925E-05
3.3800E-01	2.1707E-01	-8.7400E-01	9.8761E-01	3.1297E-03	-2.3202E-01	2.6677E-03	1.0714E-04
3.3800E-01	2.5885E-01	-8.7400E-01	1.0154E+00	2.6713E-03	-2.3268E-01	2.3607E-03	2.7062E-04
3.3800E-01	3.0878E-01	-8.7400E-01	1.0464E+00	2.0681E-03	-2.2323E-01	1.7534E-03	2.1385E-04
3.3800E-01	3.6827E-01	-8.7400E-01	1.0762E+00	1.4391E-03	-2.2635E-01	1.1585E-03	1.7564E-04
3.3800E-01	4.3945E-01	-8.7400E-01	1.1062E+00	7.0862E-04	-2.2559E-01	5.3546E-04	9.8331E-05
3.3800E-01	5.2443E-01	-8.7400E-01	1.1198E+00	1.5520E-04	-2.3296E-01	1.0736E-04	1.3753E-05
3.3800E-01	6.2571E-01	-8.7400E-01	1.1233E+00	2.9542E-05	-2.4126E-01	1.7911E-05	5.3043E-06
3.3800E-01	7.4646E-01	-8.7400E-01	1.1213E+00	1.3926E-05	-2.5673E-01	5.6198E-06	3.6127E-07
3.3800E-01	8.9023E-01	-8.7400E-01	1.1190E+00	9.8504E-06	-2.6432E-01	6.9317E-06	-1.2399E-06
3.3800E-01	1.0623E+00	-8.7400E-01	1.1192E+00	8.8152E-06	-2.6688E-01	3.7780E-06	-1.4803E-06

Table E.5-3 Hot-wire velocity measurements at X/T = .338, Z/T = -.874.

File E64470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 25.84716

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.146514E-03

Estimated momentum thickness Reynolds number = 6504.594

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
3.6100E-01	3.1870E-03	-9.8700E-01	5.7724E-01	8.3670E-03	-2.4076E-01	6.8082E-03	-2.0924E-03
3.6100E-01	3.5411E-03	-9.8700E-01	5.8112E-01	8.2703E-03	-2.5002E-01	6.6867E-03	-2.5901E-03
3.6100E-01	4.6034E-03	-9.8700E-01	5.8072E-01	8.1446E-03	-2.4845E-01	6.4904E-03	-2.5781E-03
3.6100E-01	5.6657E-03	-9.8700E-01	6.2045E-01	8.1386E-03	-2.6539E-01	7.8240E-03	-1.2805E-03
3.6100E-01	7.0822E-03	-9.8700E-01	6.5207E-01	7.1868E-03	-2.9603E-01	8.0436E-03	-8.4178E-04
3.6100E-01	8.4986E-03	-9.8700E-01	6.7662E-01	6.5505E-03	-3.1264E-01	7.5181E-03	-4.7664E-04
3.6100E-01	1.0269E-02	-9.8700E-01	6.9294E-01	6.1546E-03	-3.3404E-01	8.4493E-03	4.2032E-04
3.6100E-01	1.2748E-02	-9.8700E-01	7.1174E-01	5.5418E-03	-3.5088E-01	7.3957E-03	6.2185E-04
3.6100E-01	1.5581E-02	-9.8700E-01	7.2217E-01	5.2555E-03	-3.6394E-01	7.5788E-03	1.1285E-03
3.6100E-01	1.9122E-02	-9.8700E-01	7.3257E-01	5.0940E-03	-3.6947E-01	6.6626E-03	7.8926E-04
3.6100E-01	2.3371E-02	-9.8700E-01	7.4495E-01	5.1761E-03	-3.7072E-01	7.0565E-03	1.2160E-03
3.6100E-01	2.8683E-02	-9.8700E-01	7.5413E-01	5.1808E-03	-3.6897E-01	7.0281E-03	1.5226E-03
3.6100E-01	3.5057E-02	-9.8700E-01	7.6385E-01	5.3991E-03	-3.5943E-01	7.4503E-03	1.7352E-03
3.6100E-01	4.2847E-02	-9.8700E-01	7.7786E-01	5.6109E-03	-3.4287E-01	7.3259E-03	1.7604E-03
3.6100E-01	5.2408E-02	-9.8700E-01	7.8965E-01	5.7918E-03	-3.2460E-01	7.7282E-03	1.9430E-03
3.6100E-01	6.4093E-02	-9.8700E-01	8.0559E-01	5.7660E-03	-2.9830E-01	7.3952E-03	1.6234E-03
3.6100E-01	7.8258E-02	-9.8700E-01	8.2549E-01	5.7284E-03	-2.6908E-01	6.3256E-03	1.0662E-03
3.6100E-01	9.5963E-02	-9.8700E-01	8.4781E-01	5.4353E-03	-2.4440E-01	5.4729E-03	6.6147E-04
3.6100E-01	1.1721E-01	-9.8700E-01	8.7301E-01	4.8002E-03	-2.2587E-01	4.5213E-03	3.3049E-04
3.6100E-01	1.4306E-01	-9.8700E-01	9.0198E-01	4.2268E-03	-2.0243E-01	3.4710E-03	1.9783E-04
3.6100E-01	1.7493E-01	-9.8700E-01	9.3155E-01	3.6279E-03	-1.8797E-01	3.1071E-03	1.7347E-04
3.6100E-01	2.1388E-01	-9.8700E-01	9.6366E-01	3.1734E-03	-1.7169E-01	2.5731E-03	1.8557E-04
3.6100E-01	2.6133E-01	-9.8700E-01	9.9760E-01	2.6891E-03	-1.6034E-01	2.0378E-03	1.8476E-04
3.6100E-01	3.1905E-01	-9.8700E-01	1.0337E+00	2.0841E-03	-1.5886E-01	1.4788E-03	1.7523E-04
3.6100E-01	3.8987E-01	-9.8700E-01	1.0705E+00	1.2762E-03	-1.5170E-01	7.9532E-04	1.1826E-04
3.6100E-01	4.7663E-01	-9.8700E-01	1.1005E+00	4.3615E-04	-1.5222E-01	2.8361E-04	4.3970E-05
3.6100E-01	5.8215E-01	-9.8700E-01	1.1146E+00	4.9364E-05	-1.5264E-01	5.3011E-05	9.6237E-06
3.6100E-01	7.1140E-01	-9.8700E-01	1.1128E+00	1.3981E-05	-1.6610E-01	7.1429E-06	1.7577E-06
3.6100E-01	8.6933E-01	-9.8700E-01	1.1111E+00	7.8959E-06	-1.7205E-01	5.4696E-06	5.2744E-07
3.6100E-01	1.0623E+00	-9.8700E-01	1.1133E+00	6.9076E-06	-1.7007E-01	2.6880E-06	-7.7462E-07

Table E.5-4 Hot-wire velocity measurements at X/T = .361, Z/T = -.987.

File E65470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.57232

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.123631E-03

Estimated momentum thickness Reynolds number = 6650.183

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
3.6500E-01	3.5411E-03	-1.2440E+00	5.4135E-01	6.9732E-03	-1.7337E-01	2.2511E-03	-1.8881E-03
3.6500E-01	4.2453E-03	-1.2440E+00	5.9271E-01	6.2997E-03	-1.8058E-01	2.9033E-03	-1.2949E-03
3.6500E-01	4.9575E-03	-1.2440E+00	6.1625E-01	5.6871E-03	-1.8529E-01	2.7402E-03	-1.1896E-03
3.6500E-01	6.0198E-03	-1.2440E+00	6.3951E-01	5.0274E-03	-2.0006E-01	3.6177E-03	-6.5209E-04
3.6500E-01	7.4363E-03	-1.2440E+00	6.5231E-01	5.0044E-03	-2.0415E-01	2.8381E-03	-6.2336E-04
3.6500E-01	9.2068E-03	-1.2440E+00	6.6699E-01	4.5815E-03	-2.1351E-01	3.4648E-03	-2.1006E-04
3.6500E-01	1.1331E-02	-1.2440E+00	6.8333E-01	4.2041E-03	-2.2314E-01	3.3455E-03	-5.7977E-05
3.6500E-01	1.3810E-02	-1.2440E+00	7.0026E-01	4.0573E-03	-2.2683E-01	3.2169E-03	1.7180E-04
3.6500E-01	1.6997E-02	-1.2440E+00	7.1186E-01	3.8097E-03	-2.3089E-01	3.0546E-03	1.3569E-04
3.6500E-01	2.0538E-02	-1.2440E+00	7.2253E-01	3.7091E-03	-2.3350E-01	3.5273E-03	4.6948E-04
3.6500E-01	2.5142E-02	-1.2440E+00	7.3828E-01	3.7460E-03	-2.3058E-01	3.0704E-03	3.9937E-04
3.6500E-01	3.0807E-02	-1.2440E+00	7.5078E-01	3.7537E-03	-2.2713E-01	3.0981E-03	4.3049E-04
3.6500E-01	3.7181E-02	-1.2440E+00	7.6335E-01	3.7375E-03	-2.2013E-01	2.9373E-03	3.2683E-04
3.6500E-01	4.5326E-02	-1.2440E+00	7.7735E-01	3.9120E-03	-1.9910E-01	3.0295E-03	4.1748E-04
3.6500E-01	5.5241E-02	-1.2440E+00	7.8708E-01	4.1099E-03	-2.0578E-01	3.0618E-03	3.4842E-04
3.6500E-01	6.7635E-02	-1.2440E+00	8.0222E-01	4.1768E-03	-1.9384E-01	3.0789E-03	2.7769E-04
3.6500E-01	8.2153E-02	-1.2440E+00	8.1838E-01	4.1381E-03	-1.8551E-01	2.8316E-03	1.2188E-04
3.6500E-01	1.0021E-01	-1.2440E+00	8.3827E-01	4.1633E-03	-1.7524E-01	2.8151E-03	1.1110E-04
3.6500E-01	1.2181E-01	-1.2440E+00	8.5994E-01	4.0773E-03	-1.6555E-01	2.7190E-03	2.8771E-04
3.6500E-01	1.4837E-01	-1.2440E+00	8.8467E-01	3.8341E-03	-1.5320E-01	2.6511E-03	2.2253E-04
3.6500E-01	1.8059E-01	-1.2440E+00	9.0929E-01	3.4165E-03	-1.4916E-01	2.5841E-03	1.8002E-04
3.6500E-01	2.1990E-01	-1.2440E+00	9.3898E-01	3.0567E-03	-1.3394E-01	2.1895E-03	9.8626E-05
3.6500E-01	2.6806E-01	-1.2440E+00	9.7096E-01	2.4417E-03	-1.2125E-01	2.1181E-03	1.6275E-04
3.6500E-01	3.2613E-01	-1.2440E+00	1.0069E+00	1.9390E-03	-1.1572E-01	1.3229E-03	6.9322E-05
3.6500E-01	3.9731E-01	-1.2440E+00	1.0420E+00	1.1994E-03	-1.0266E-01	6.0570E-04	1.2323E-05
3.6500E-01	4.8336E-01	-1.2440E+00	1.0694E+00	4.1851E-04	-1.0433E-01	1.3431E-04	6.9838E-07
3.6500E-01	5.8853E-01	-1.2440E+00	1.0815E+00	4.4107E-05	-1.0486E-01	5.2054E-05	2.3109E-06
3.6500E-01	7.1671E-01	-1.2440E+00	1.0826E+00	1.1533E-05	-1.0077E-01	5.9203E-06	8.7829E-07
3.6500E-01	8.7252E-01	-1.2440E+00	1.0830E+00	5.9415E-06	-1.0731E-01	9.3268E-06	2.1545E-07
3.6500E-01	1.0623E+00	-1.2440E+00	1.0834E+00	5.3793E-06	-1.1332E-01	1.1472E-06	-7.0129E-07

Table E.5-5 Hot-wire velocity measurements at X/T = .365, Z/T = -1.244.

E.6 HOT-WIRE MEASUREMENTS IN PLANE G

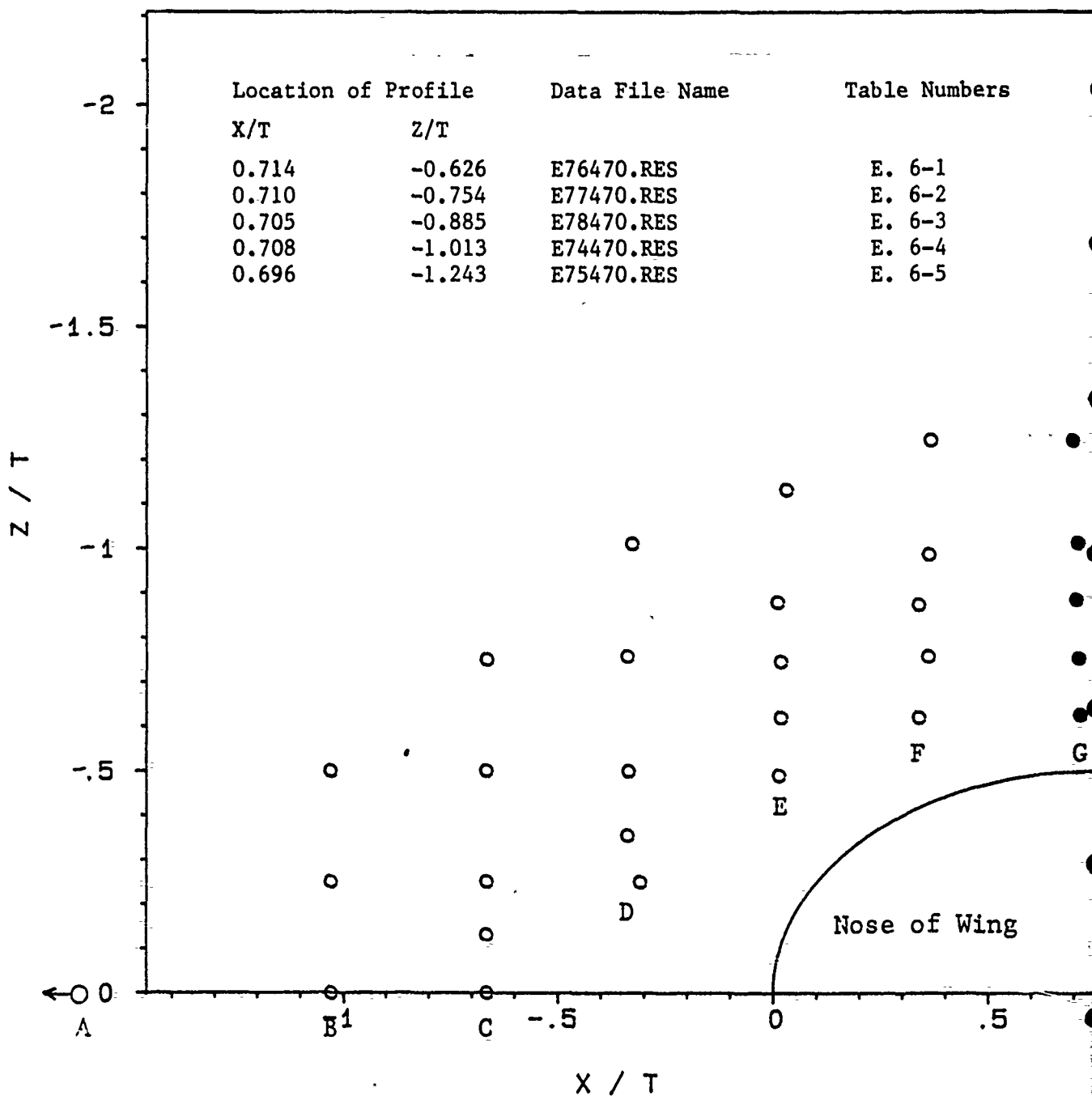


Figure E,6-1 Location of hot-wire profiles measured in plane G.

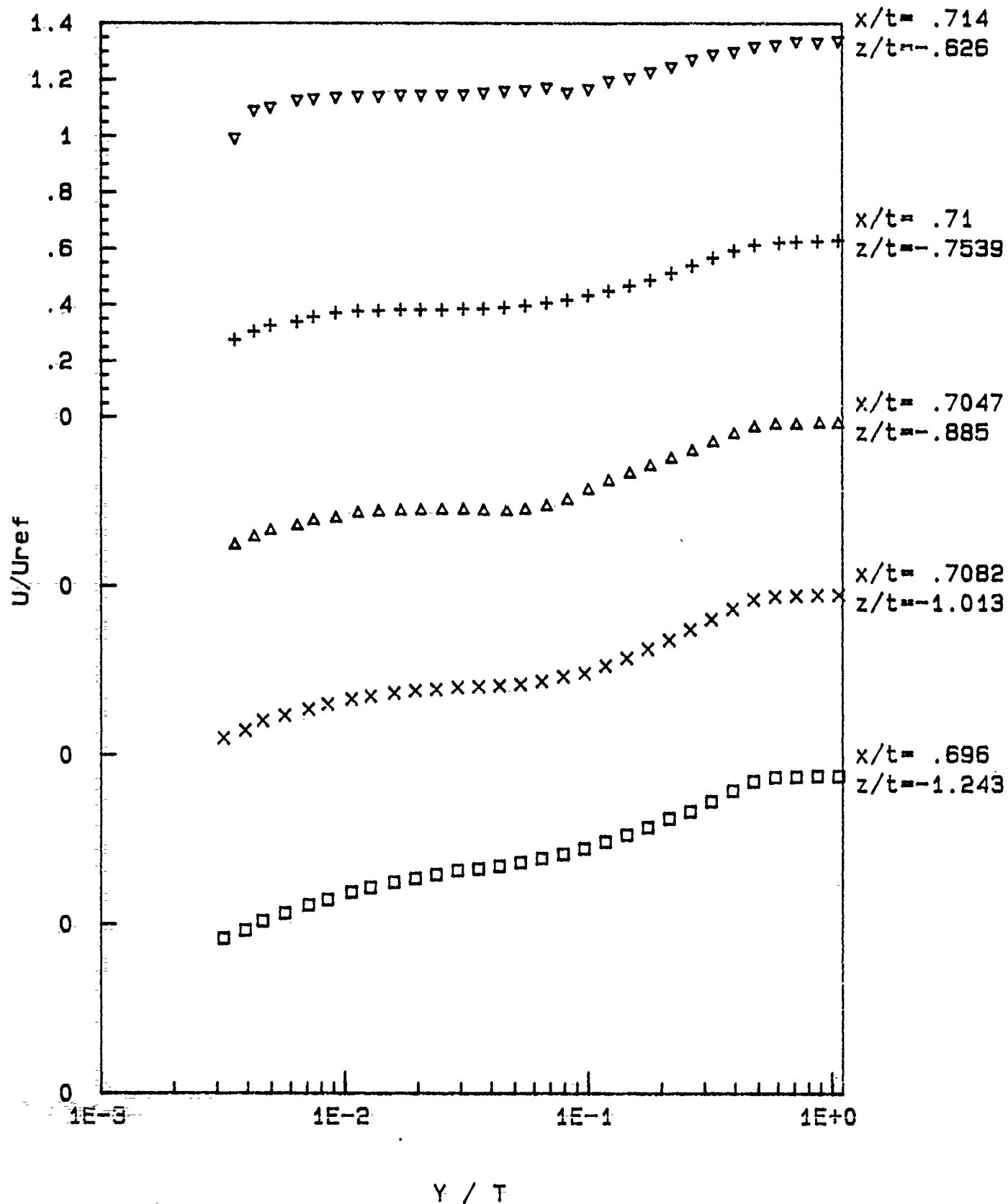


FIGURE E.6-2 Profiles of Mean Velocity Component U, Plane G

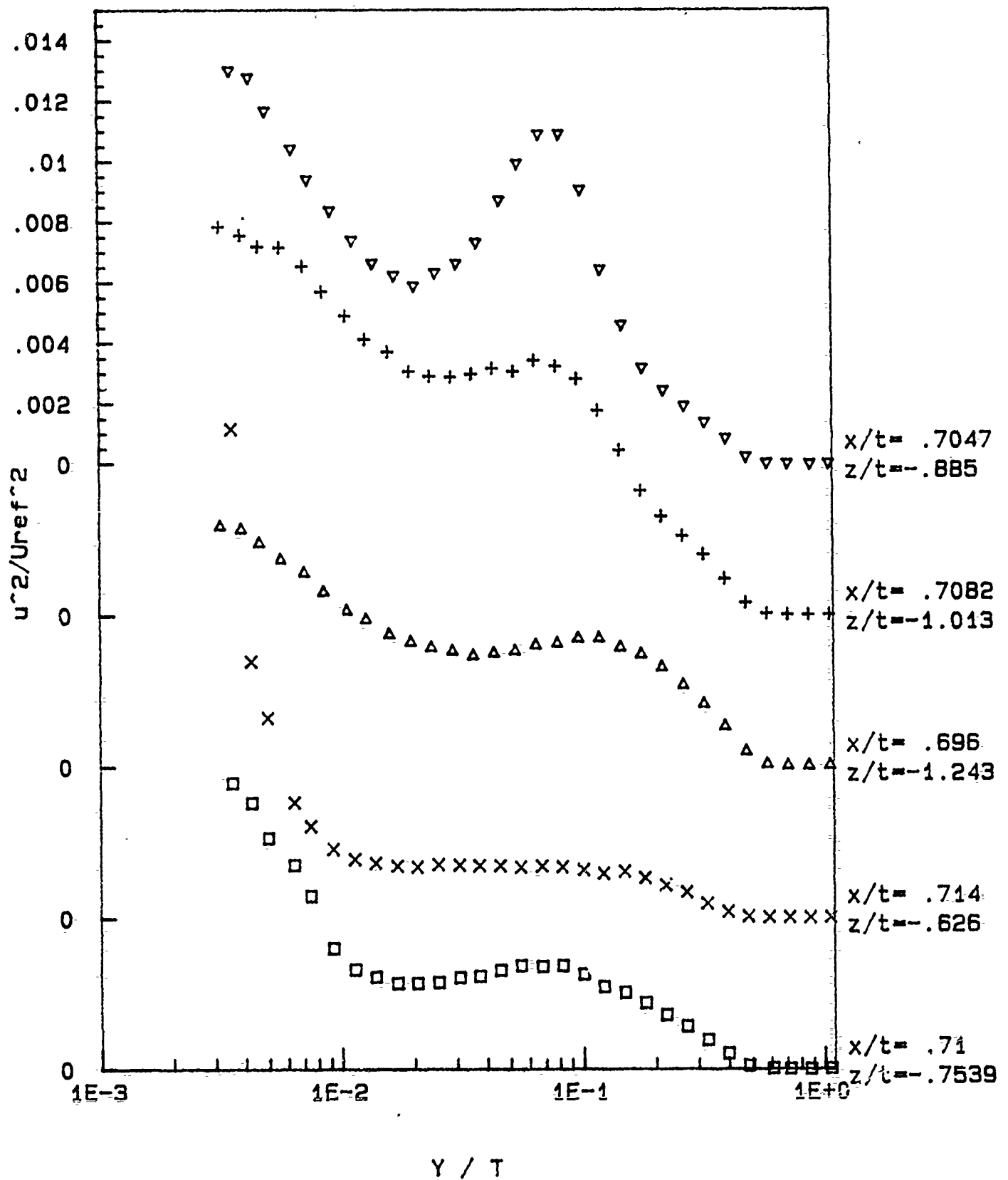


FIGURE E.6-3 Profiles of the U Component of Turbulence Normal Stress, Plane G

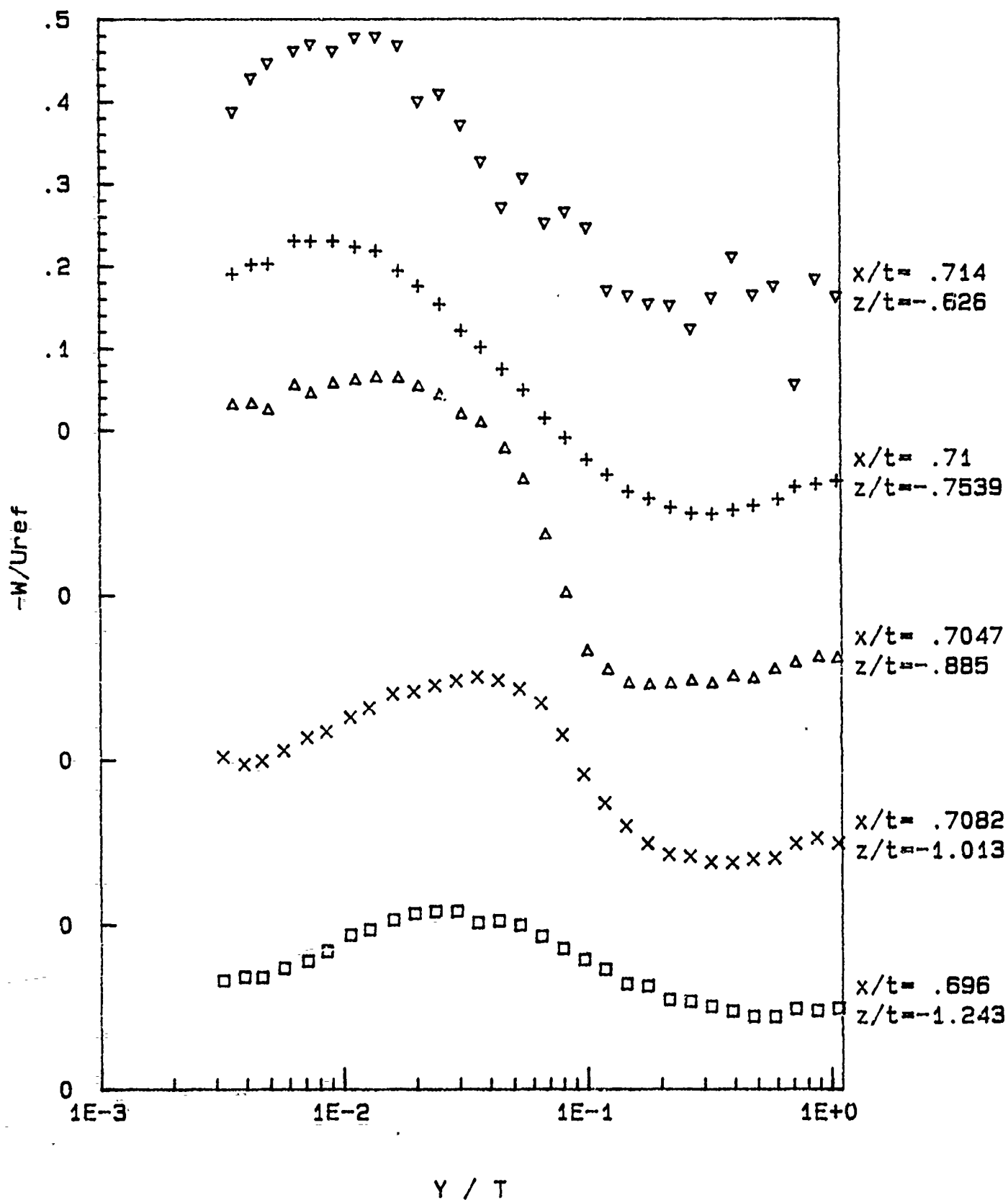


FIGURE E.6-4 Profiles of Mean-Velocity Component W, Plane G

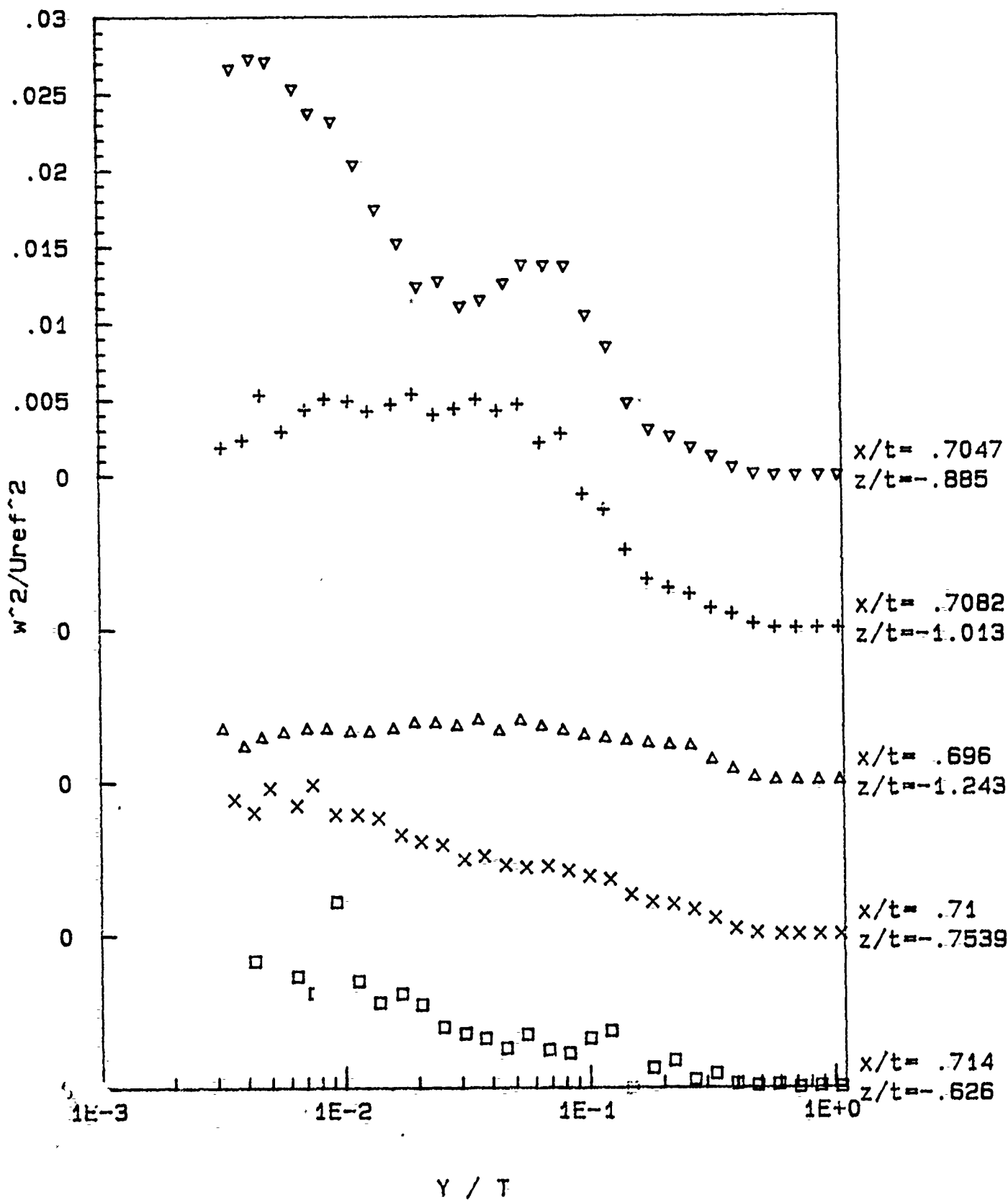


FIGURE E.6-5 Profiles of the W Component of Turbulence Normal Stress, Plane G

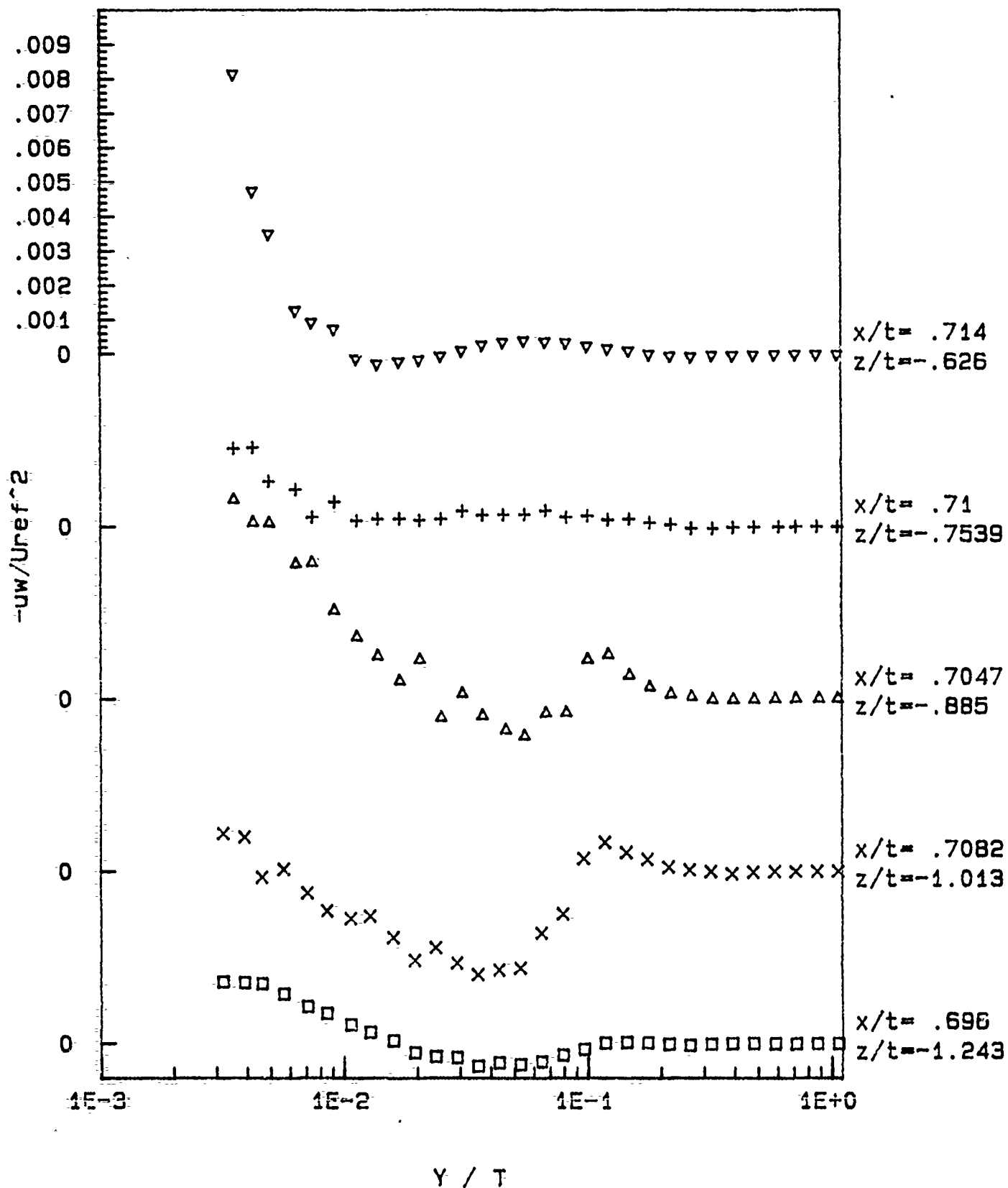


FIGURE E.6-6 Profiles of the UW Reynolds Shear Stress, Plane G

File E76470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.25167

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.133655E-03

Estimated momentum thickness Reynolds number = 6585.906

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
7.1400E-01	3.5411E-03	-6.2600E-01	9.9502E-01	1.6149E-02	-3.8884E-01		-8.1460E-03
7.1400E-01	4.2493E-03	-6.2600E-01	1.0931E+00	8.4749E-03	-4.2935E-01	8.2998E-03	-4.7394E-03
7.1400E-01	4.9575E-03	-6.2600E-01	1.1046E+00	6.6153E-03	-4.4754E-01		-3.4979E-03
7.1400E-01	6.3739E-03	-6.2600E-01	1.1302E+00	3.8157E-03	-4.6250E-01	7.3113E-03	-1.2684E-03
7.1400E-01	7.4363E-03	-6.2600E-01	1.1358E+00	3.0320E-03	-4.7057E-01	6.2167E-03	-9.1829E-04
7.1400E-01	9.2068E-03	-6.2600E-01	1.1409E+00	2.2647E-03	-4.6200E-01	1.2166E-02	-7.3127E-04
7.1400E-01	1.1331E-02	-6.2600E-01	1.1442E+00	1.9357E-03	-4.7646E-01	6.9805E-03	1.2815E-04
7.1400E-01	1.3810E-02	-6.2600E-01	1.1443E+00	1.8107E-03	-4.7961E-01	5.5787E-03	2.8336E-04
7.1400E-01	1.6997E-02	-6.2600E-01	1.1489E+00	1.7088E-03	-4.6896E-01	6.1497E-03	2.0862E-04
7.1400E-01	2.0538E-02	-6.2600E-01	1.1488E+00	1.6877E-03	-4.0081E-01	5.4424E-03	1.5425E-04
7.1400E-01	2.5142E-02	-6.2600E-01	1.1495E+00	1.7564E-03	-4.1018E-01	3.9648E-03	4.9663E-05
7.1400E-01	3.0807E-02	-6.2600E-01	1.1503E+00	1.7472E-03	-3.7204E-01	3.5464E-03	-1.0817E-04
7.1400E-01	3.7181E-02	-6.2600E-01	1.1568E+00	1.7215E-03	-3.2769E-01	3.2223E-03	-2.7419E-04
7.1400E-01	4.5326E-02	-6.2600E-01	1.1630E+00	1.7208E-03	-2.7209E-01	2.5727E-03	-3.6061E-04
7.1400E-01	5.5241E-02	-6.2600E-01	1.1660E+00	1.6710E-03	-3.0747E-01	3.4863E-03	-4.0331E-04
7.1400E-01	6.7635E-02	-6.2600E-01	1.1746E+00	1.7018E-03	-2.5280E-01	2.4630E-03	-3.7072E-04
7.1400E-01	8.2153E-02	-6.2600E-01	1.1570E+00	1.6823E-03	-2.6697E-01	2.2568E-03	-3.4490E-04
7.1400E-01	1.0021E-01	-6.2600E-01	1.1692E+00	1.5793E-03	-2.4699E-01	3.2205E-03	-2.3976E-04
7.1400E-01	1.2181E-01	-6.2600E-01	1.1981E+00	1.4653E-03	-1.7086E-01	3.7151E-03	-1.6742E-04
7.1400E-01	1.4837E-01	-6.2600E-01	1.2093E+00	1.5244E-03	-1.6479E-01		-1.0484E-04
7.1400E-01	1.8059E-01	-6.2600E-01	1.2297E+00	1.3125E-03	-1.5470E-01	1.2848E-03	-9.5544E-06
7.1400E-01	2.1990E-01	-6.2600E-01	1.2492E+00	1.0714E-03	-1.5284E-01	1.7581E-03	4.4152E-05
7.1400E-01	2.6806E-01	-6.2600E-01	1.2749E+00	8.4092E-04	-1.2414E-01	5.2027E-04	6.1549E-05
7.1400E-01	3.2613E-01	-6.2600E-01	1.2928E+00	4.6803E-04	-1.6250E-01	9.0005E-04	2.6561E-05
7.1400E-01	3.9731E-01	-6.2600E-01	1.3020E+00	1.8890E-04	-2.1162E-01	2.6723E-04	2.7416E-05
7.1400E-01	4.8336E-01	-6.2600E-01	1.3206E+00	4.5390E-05	-1.6551E-01	1.3496E-04	1.1841E-05
7.1400E-01	5.8853E-01	-6.2600E-01	1.3269E+00	1.4812E-05	-1.7623E-01	2.0761E-04	4.0721E-06
7.1400E-01	7.1671E-01	-6.2600E-01	1.3386E+00	1.2406E-05	-5.6782E-02	1.9100E-05	1.2020E-06
7.1400E-01	8.7252E-01	-6.2600E-01	1.3354E+00	8.2626E-06	-1.8505E-01	9.9709E-05	2.3556E-06
7.1400E-01	1.0623E+00	-6.2600E-01	1.3412E+00	7.5913E-06	-1.6408E-01	4.4658E-05	7.4413E-07

Table E.6-1 Hot-wire velocity measurements at X/T = .714, Z/T = -.626.

File E77470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.26233

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.13332E-03

Estimated momentum thickness Reynolds number = 6598.043

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
7.1000E-01	3.5411E-03	-7.5390E-01	8.7547E-01	9.4502E-03	-3.9033E-01	8.8625E-03	-2.2723E-03
7.1000E-01	4.2493E-03	-7.5390E-01	9.0456E-01	8.7980E-03	-4.0200E-01	7.9990E-03	-2.2995E-03
7.1000E-01	4.9575E-03	-7.5390E-01	9.2658E-01	7.6294E-03	-4.0268E-01	9.6109E-03	-1.3133E-03
7.1000E-01	6.3739E-03	-7.5390E-01	9.3938E-01	6.7377E-03	-4.3091E-01	8.4695E-03	-1.0724E-03
7.1000E-01	7.4363E-03	-7.5390E-01	9.5649E-01	5.7106E-03	-4.3049E-01	9.8271E-03	-2.6641E-04
7.1000E-01	9.2068E-03	-7.5390E-01	9.7124E-01	3.9838E-03	-4.3031E-01	7.8546E-03	-7.1944E-04
7.1000E-01	1.1331E-02	-7.5390E-01	9.7737E-01	3.2853E-03	-4.2331E-01	7.8496E-03	-1.7167E-04
7.1000E-01	1.3910E-02	-7.5390E-01	9.7978E-01	3.0411E-03	-4.1872E-01	7.6244E-03	-2.2319E-04
7.1000E-01	1.6997E-02	-7.5390E-01	9.8301E-01	2.8336E-03	-3.9419E-01	6.5195E-03	-2.2894E-04
7.1000E-01	2.0538E-02	-7.5390E-01	9.8254E-01	2.8361E-03	-3.7537E-01	6.0985E-03	-1.8487E-04
7.1000E-01	2.5142E-02	-7.5390E-01	9.8189E-01	2.8592E-03	-3.5325E-01	5.8605E-03	-2.1766E-04
7.1000E-01	3.0807E-02	-7.5390E-01	9.8614E-01	3.0266E-03	-3.2108E-01	4.9042E-03	-4.5593E-04
7.1000E-01	3.7181E-02	-7.5390E-01	9.8575E-01	3.0606E-03	-3.0107E-01	5.1237E-03	-3.3267E-04
7.1000E-01	4.5326E-02	-7.5390E-01	9.9095E-01	3.2654E-03	-2.7463E-01	4.5418E-03	-3.4669E-04
7.1000E-01	5.5241E-02	-7.5390E-01	9.9659E-01	3.4174E-03	-2.4890E-01	4.3857E-03	-3.5227E-04
7.1000E-01	6.7635E-02	-7.5390E-01	1.0075E+00	3.3856E-03	-2.1470E-01	4.4709E-03	-4.6621E-04
7.1000E-01	8.2153E-02	-7.5390E-01	1.0178E+00	3.4236E-03	-1.9117E-01	4.1811E-03	-2.7741E-04
7.1000E-01	1.0021E-01	-7.5390E-01	1.0344E+00	3.1257E-03	-1.6407E-01	3.8128E-03	-3.1016E-04
7.1000E-01	1.2181E-01	-7.5390E-01	1.0502E+00	2.7169E-03	-1.4606E-01	3.6081E-03	-2.0326E-04
7.1000E-01	1.4837E-01	-7.5390E-01	1.0689E+00	2.5172E-03	-1.2573E-01	2.5800E-03	-2.2226E-04
7.1000E-01	1.8059E-01	-7.5390E-01	1.0891E+00	2.1784E-03	-1.1732E-01	2.1298E-03	-1.1822E-04
7.1000E-01	2.1990E-01	-7.5390E-01	1.1141E+00	1.7824E-03	-1.0660E-01	1.9591E-03	-5.8547E-05
7.1000E-01	2.6806E-01	-7.5390E-01	1.1406E+00	1.4050E-03	-9.9297E-02	1.6520E-03	4.8837E-05
7.1000E-01	3.2613E-01	-7.5390E-01	1.1683E+00	9.5384E-04	-9.8663E-02	1.0561E-03	5.9985E-05
7.1000E-01	3.9731E-01	-7.5390E-01	1.1939E+00	4.9969E-04	-1.0320E-01	3.7543E-04	2.3625E-05
7.1000E-01	4.8336E-01	-7.5390E-01	1.2142E+00	1.0943E-04	-1.0898E-01	1.0813E-04	6.0517E-06
7.1000E-01	6.0765E-01	-7.5390E-01	1.2224E+00	1.5728E-05	-1.1655E-01	1.6191E-05	4.0995E-06
7.1000E-01	7.1671E-01	-7.5390E-01	1.2254E+00	8.3817E-06	-1.3161E-01	1.0638E-05	9.5973E-07
7.1000E-01	8.7252E-01	-7.5390E-01	1.2275E+00	7.1299E-06	-1.3476E-01	3.0992E-06	-2.8228E-07
7.1000E-01	1.0623E+00	-7.5390E-01	1.2310E+00	5.8260E-06	-1.3919E-01	6.9688E-06	4.5332E-07

Table E.6-2 Hot-wire velocity measurements at X/T = .710, Z/T = -.754.

File E78470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.2746

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.132934E-03

Estimated momentum thickness Reynolds number = 6590.508

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
7.0470E-01	3.5411E-03	-8.8500E-01	7.4462E-01	1.3019E-02	-4.3053E-01	2.6674E-02	-5.7782E-03
7.0470E-01	4.2493E-03	-8.8500E-01	7.7320E-01	1.2795E-02	-4.3182E-01	2.7311E-02	-5.1088E-03
7.0470E-01	4.9575E-03	-8.8500E-01	7.9580E-01	1.1689E-02	-4.2424E-01	2.7132E-02	-5.0964E-03
7.0470E-01	6.3739E-03	-8.8500E-01	8.1293E-01	1.0428E-02	-4.5433E-01	2.5349E-02	-3.9072E-03
7.0470E-01	7.4363E-03	-8.8500E-01	8.3191E-01	9.4065E-03	-4.4427E-01	2.3731E-02	-3.9355E-03
7.0470E-01	9.2068E-03	-8.8500E-01	8.4084E-01	8.3753E-03	-4.5635E-01	2.3208E-02	-2.5544E-03
7.0470E-01	1.1331E-02	-8.8500E-01	8.5923E-01	7.4062E-03	-4.6039E-01	2.0367E-02	-1.7903E-03
7.0470E-01	1.3810E-02	-8.8500E-01	8.6312E-01	6.6379E-03	-4.6402E-01	1.7436E-02	-1.2336E-03
7.0470E-01	1.6997E-02	-8.8500E-01	8.6655E-01	6.2343E-03	-4.6299E-01	1.5217E-02	-5.0628E-04
7.0470E-01	2.0538E-02	-8.8500E-01	8.6786E-01	5.8858E-03	-4.5261E-01	1.2382E-02	-1.1321E-03
7.0470E-01	2.5142E-02	-8.8500E-01	8.6972E-01	6.3253E-03	-4.4242E-01	1.2742E-02	5.5844E-04
7.0470E-01	3.0807E-02	-8.8500E-01	8.7014E-01	6.6318E-03	-4.1843E-01	1.1079E-02	-1.4556E-04
7.0470E-01	3.7181E-02	-8.8500E-01	8.6645E-01	7.3206E-03	-4.0870E-01	1.1491E-02	5.0247E-04
7.0470E-01	4.6388E-02	-8.8500E-01	8.6558E-01	8.7194E-03	-3.7716E-01	1.2561E-02	9.1046E-04
7.0470E-01	5.5241E-02	-8.8500E-01	8.7066E-01	9.9308E-03	-3.3909E-01	1.3817E-02	1.0870E-03
7.0470E-01	6.7635E-02	-8.8500E-01	8.8358E-01	1.0898E-02	-2.7210E-01	1.3744E-02	4.2229E-04
7.0470E-01	8.2153E-02	-8.8500E-01	9.0582E-01	1.0911E-02	-2.0176E-01	1.3717E-02	4.0442E-04
7.0470E-01	1.0021E-01	-8.8500E-01	9.4105E-01	9.0557E-03	-1.3069E-01	1.0462E-02	-1.1400E-03
7.0470E-01	1.2181E-01	-8.8500E-01	9.7270E-01	6.4234E-03	-1.0805E-01	8.4297E-03	-1.2857E-03
7.0470E-01	1.4837E-01	-8.8500E-01	1.0003E+00	4.5821E-03	-9.1999E-02	4.7471E-03	-6.7962E-04
7.0470E-01	1.8059E-01	-8.8500E-01	1.0262E+00	3.1724E-03	-9.0084E-02	2.9946E-03	-3.3985E-04
7.0470E-01	2.1990E-01	-8.8500E-01	1.0528E+00	2.4375E-03	-9.1333E-02	2.5384E-03	-1.3339E-04
7.0470E-01	2.6806E-01	-8.8500E-01	1.0797E+00	1.9117E-03	-9.5003E-02	1.8437E-03	-5.6856E-05
7.0470E-01	3.2613E-01	-8.8500E-01	1.1111E+00	1.3763E-03	-9.1518E-02	1.2567E-03	2.8424E-05
7.0470E-01	3.9731E-01	-8.8500E-01	1.1404E+00	8.3441E-04	-9.9985E-02	5.3828E-04	2.6517E-05
7.0470E-01	4.8336E-01	-8.8500E-01	1.1653E+00	2.3388E-04	-9.7839E-02	1.1488E-04	1.7278E-05
7.0470E-01	5.8853E-01	-8.8500E-01	1.1747E+00	2.7488E-05	-1.0884E-01	1.8400E-05	5.5634E-06
7.0470E-01	7.1671E-01	-8.8500E-01	1.1745E+00	9.2938E-06	-1.1686E-01	5.0742E-06	1.5861E-06
7.0470E-01	8.8952E-01	-8.8500E-01	1.1788E+00	5.9144E-06	-1.2377E-01	4.6364E-06	2.2533E-08
7.0470E-01	1.0623E+00	-8.8500E-01	1.1778E+00	5.7647E-06	-1.2257E-01	1.0339E-06	-1.2909E-07

Table E.6-3 Hot-wire velocity measurements at X/T = .705, Z/T = -.885.

File E74470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.29486

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.132296E-03

Estimated momentum thickness Reynolds number = 6594.572

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
7.0820E-01	3.1670E-03	-1.0130E+00	6.6145E-01	1.2849E-02	-2.0364E-01	1.1878E-02	-1.0982E-03
7.0820E-01	3.8952E-03	-1.0130E+00	6.9872E-01	1.2557E-02	-1.9476E-01	1.2351E-02	-9.9651E-04
7.0820E-01	4.6034E-03	-1.0130E+00	7.2334E-01	1.2190E-02	-1.9894E-01	1.5311E-02	1.7506E-04
7.0820E-01	5.6657E-03	-1.0130E+00	7.4135E-01	1.2157E-02	-2.1143E-01	1.2908E-02	-6.0143E-05
7.0820E-01	7.0822E-03	-1.0130E+00	7.6342E-01	1.1534E-02	-2.2730E-01	1.4340E-02	6.3278E-04
7.0820E-01	8.4986E-03	-1.0130E+00	7.8213E-01	1.0691E-02	-2.3425E-01	1.5045E-02	1.1505E-03
7.0820E-01	1.0623E-02	-1.0130E+00	8.0010E-01	9.8921E-03	-2.5181E-01	1.4903E-02	1.3750E-03
7.0820E-01	1.2748E-02	-1.0130E+00	8.1087E-01	9.1175E-03	-2.6330E-01	1.4236E-02	1.3008E-03
7.0820E-01	1.5935E-02	-1.0130E+00	8.2183E-01	8.6988E-03	-2.8013E-01	1.4676E-02	1.9198E-03
7.0820E-01	1.9476E-02	-1.0130E+00	8.3059E-01	8.0595E-03	-2.8298E-01	1.5347E-02	2.5894E-03
7.0820E-01	2.3725E-02	-1.0130E+00	8.3428E-01	7.8886E-03	-2.9064E-01	1.3993E-02	2.2208E-03
7.0820E-01	2.9037E-02	-1.0130E+00	8.4159E-01	7.8698E-03	-2.9616E-01	1.4388E-02	2.6658E-03
7.0820E-01	3.5411E-02	-1.0130E+00	8.4418E-01	7.9675E-03	-3.0090E-01	1.4984E-02	3.0032E-03
7.0820E-01	4.3201E-02	-1.0130E+00	8.4835E-01	8.1510E-03	-2.9679E-01	1.4237E-02	2.8619E-03
7.0820E-01	5.2762E-02	-1.0130E+00	8.5365E-01	8.0529E-03	-2.8612E-01	1.4660E-02	2.8047E-03
7.0820E-01	6.4448E-02	-1.0130E+00	8.6356E-01	8.4200E-03	-2.6859E-01	1.2137E-02	1.7839E-03
7.0820E-01	7.8966E-02	-1.0130E+00	8.8142E-01	8.2231E-03	-2.3051E-01	1.2730E-02	1.2308E-03
7.0820E-01	9.6317E-02	-1.0130E+00	8.9147E-01	7.7976E-03	-1.8205E-01	8.7645E-03	-3.7450E-04
7.0820E-01	1.1756E-01	-1.0130E+00	9.1926E-01	6.7535E-03	-1.4733E-01	7.7565E-03	-8.4655E-04
7.0820E-01	1.4377E-01	-1.0130E+00	9.4662E-01	5.4320E-03	-1.1979E-01	5.1117E-03	-5.4765E-04
7.0820E-01	1.7564E-01	-1.0130E+00	9.7919E-01	4.1054E-03	-9.8431E-02	3.2155E-03	-3.5253E-04
7.0820E-01	2.1459E-01	-1.0130E+00	1.0109E+00	3.2550E-03	-8.5039E-02	2.6115E-03	-1.2143E-04
7.0820E-01	2.6204E-01	-1.0130E+00	1.0475E+00	2.6073E-03	-8.2829E-02	2.2453E-03	-4.3165E-05
7.0820E-01	3.1976E-01	-1.0130E+00	1.0849E+00	1.9985E-03	-7.5782E-02	1.3095E-03	5.0927E-06
7.0820E-01	3.9093E-01	-1.0130E+00	1.1212E+00	1.1822E-03	-7.4795E-02	9.4511E-04	7.1383E-05
7.0820E-01	4.7734E-01	-1.0130E+00	1.1553E+00	4.0644E-04	-7.9250E-02	2.8547E-04	2.0358E-05
7.0820E-01	5.8286E-01	-1.0130E+00	1.1655E+00	5.0266E-05	-8.0835E-02	2.9692E-05	4.1161E-06
7.0820E-01	7.1211E-01	-1.0130E+00	1.1678E+00	1.1624E-05	-9.8278E-02	5.1895E-06	1.9653E-06
7.0820E-01	8.6969E-01	-1.0130E+00	1.1701E+00	6.8127E-06	-1.0508E-01	2.5163E-06	1.1649E-06
7.0820E-01	1.0623E+00	-1.0130E+00	1.1715E+00	4.8489E-06	-9.8942E-02	2.8972E-06	-6.8107E-07

Table E.6-4 Hot-wire velocity measurements at X/T = .708, Z/T = -1.013.

File E75470.RES

Velocity measurements obtained using the single-sensor hot wire probe

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.106

viscosity (meters squared per second) = 1.65237E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 26.34887

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (a) = 4.130601E-03

Estimated momentum thickness Reynolds number = 6605.406

X/T	Y/T	Z/T	U/Uref	u2/Uref2	W/Uref	w2/Uref2	uw/Uref2
6.9600E-01	3.1E70E-03	-1.2430E+00	5.5048E-01	7.9351E-03	-1.3197E-01	3.4157E-03	-1.7939E-03
6.9600E-01	3.9952E-03	-1.2430E+00	5.7959E-01	7.8281E-03	-1.3667E-01	2.2579E-03	-1.7741E-03
6.9600E-01	4.6034E-03	-1.2430E+00	6.1268E-01	7.3746E-03	-1.3606E-01	2.8456E-03	-1.7357E-03
6.9600E-01	5.6657E-03	-1.2430E+00	6.3968E-01	6.8199E-03	-1.4712E-01	3.1564E-03	-1.4395E-03
6.9600E-01	7.0E22E-03	-1.2430E+00	6.6902E-01	6.3882E-03	-1.5598E-01	3.4107E-03	-1.0718E-03
6.9600E-01	8.4986E-03	-1.2430E+00	6.8828E-01	5.7569E-03	-1.6772E-01	3.3990E-03	-8.7933E-04
6.9600E-01	1.0623E-02	-1.2430E+00	7.1438E-01	5.1386E-03	-1.8753E-01	3.2194E-03	-5.4499E-04
6.9600E-01	1.2748E-02	-1.2430E+00	7.3126E-01	4.8439E-03	-1.9409E-01	3.2021E-03	-3.3023E-04
6.9600E-01	1.5935E-02	-1.2430E+00	7.4927E-01	4.3475E-03	-2.0575E-01	3.4168E-03	-8.7205E-05
6.9600E-01	1.9476E-02	-1.2430E+00	7.6290E-01	4.0980E-03	-2.1345E-01	3.7979E-03	2.6348E-04
6.9600E-01	2.3725E-02	-1.2430E+00	7.7711E-01	3.9140E-03	-2.1607E-01	3.7634E-03	3.8402E-04
6.9600E-01	2.9037E-02	-1.2430E+00	7.9090E-01	3.8043E-03	-2.1623E-01	3.6029E-03	4.0984E-04
6.9600E-01	3.5411E-02	-1.2430E+00	7.9699E-01	3.6466E-03	-2.0213E-01	3.9676E-03	6.6032E-04
6.9600E-01	4.3201E-02	-1.2430E+00	8.0714E-01	3.7304E-03	-2.0467E-01	3.2675E-03	5.5603E-04
6.9600E-01	5.2762E-02	-1.2430E+00	8.2093E-01	3.8013E-03	-1.9953E-01	3.9384E-03	6.1496E-04
6.9600E-01	6.4448E-02	-1.2430E+00	8.3434E-01	3.9888E-03	-1.8569E-01	3.5617E-03	5.2666E-04
6.9600E-01	7.8966E-02	-1.2430E+00	8.4955E-01	4.0583E-03	-1.7087E-01	3.2814E-03	3.3189E-04
6.9600E-01	9.6317E-02	-1.2430E+00	8.6969E-01	4.2085E-03	-1.5717E-01	2.9623E-03	1.6749E-04
6.9600E-01	1.1756E-01	-1.2430E+00	8.9462E-01	4.2246E-03	-1.4545E-01	2.7825E-03	-2.2809E-05
6.9600E-01	1.4377E-01	-1.2430E+00	9.1903E-01	3.9103E-03	-1.2776E-01	2.6081E-03	-3.6562E-05
6.9600E-01	1.7564E-01	-1.2430E+00	9.4563E-01	3.6828E-03	-1.2528E-01	2.4400E-03	-2.8272E-05
6.9600E-01	2.1459E-01	-1.2430E+00	9.7666E-01	3.2543E-03	-1.0835E-01	2.3138E-03	1.2326E-05
6.9600E-01	2.6204E-01	-1.2430E+00	1.0017E+00	2.6585E-03	-1.0637E-01	2.2812E-03	4.6813E-05
6.9600E-01	3.1976E-01	-1.2430E+00	1.0375E+00	2.0388E-03	-1.0026E-01	1.3397E-03	1.6648E-05
6.9600E-01	3.9093E-01	-1.2430E+00	1.0756E+00	1.2901E-03	-9.4419E-02	7.4289E-04	-3.8937E-06
6.9600E-01	4.7734E-01	-1.2430E+00	1.1090E+00	4.7503E-04	-8.8221E-02	2.1801E-04	-1.0018E-05
6.9600E-01	5.8286E-01	-1.2430E+00	1.1234E+00	5.6205E-05	-8.7768E-02	3.6934E-05	-2.6093E-06
6.9600E-01	7.1211E-01	-1.2430E+00	1.1254E+00	1.0906E-05	-9.7508E-02	1.0730E-05	3.8998E-07
6.9600E-01	8.6969E-01	-1.2430E+00	1.1279E+00	6.3399E-06	-9.5199E-02	4.1092E-06	8.6448E-07
6.9600E-01	1.0623E+00	-1.2430E+00	1.1278E+00	6.0399E-06	-9.8181E-02		-2.8785E-07

Table E.6-5 Hot-wire velocity measurements at X/T = .696, Z/T = -1.243.

F. LASER DOPPLER ANEMOMETRY

A 3-component laser doppler velocimeter (LDV) was used to measure detailed profiles of mean velocity and turbulence quantities in 6 planes surrounding the wing. These planes (for organizational reasons numbered 1, 3, 4, 5, 8 and 10) are illustrated in figure F-1.

The LDV uses a Coherent Innova 90 argon-ion laser operated at a wavelength of 514.5nm with a power of about 1.5W. Light from the laser is passed through a dual Bragg cell containing 21.5MHz and 15MHz transducers. The Bragg cell is adjusted so that almost all the light leaving it is in four beams of approximately equal intensity, one unshifted and the other three shifted by -15MHz, 21.5MHz and 6.5MHz. One of three different sets of sending optics is used to direct these beams to the measurement volume. Each set of sending optics produces an arrangement of the beams that is sensitive to a different pair of velocity components. Only one set of sending optics is used at any one time.

The optical system designed by Simpson and Chew (1979) is used to measure velocity components in the UV plane. This system produces convergent beams that enter the wind tunnel through one of its glass side walls (figure A-1). The unshifted and 21.5MHz shifted beams make an angle of 0.8° with the horizontal wind-tunnel floor and are bisected by a YZ plane (figure A-1). In the measurement volume these beams produce a moving fringe pattern sensitive to U-component velocities. Their 0.8° inclination ensures that there is no interference of the beams by the wind-tunnel floor (prior to the measurement volume) when measurements are being made close to the floor. The unshifted and -15MHz shifted beams lie in the same vertical plane with the latter inclined at about 6° to the wind-tunnel floor. These form a fringe pattern sensitive to $-V \cos 3.4^\circ + W \sin 3.4^\circ$ which in the present

measurements was indistinguishable from $-V$. A third signal around 36.5MHz is obtained from the fringe pattern formed by the -15MHz and 21.5MHz shifted beams and measures $0.7041 \times (U - V \cdot \cos 4.4^\circ - W \cdot \sin 4.4^\circ)$, the W contribution again being negligible in the present experiments. The 6.5MHz shifted beam is not used by the UV optics.

The UW optical system (figure A-1) produces a similar arrangement of three beams. Here the beams enter the wind tunnel through the plexiglas plate set in its floor. The unshifted beam lies parallel to the y -axis. The -15MHz shifted beam lies in an XY plane at an angle of about 5° to the unshifted beam with which it measures $U \cdot \cos 2.5^\circ - V \cdot \sin 2.5^\circ$. The 21.5MHz shifted beam lies in a YZ plane also at an angle of about 5° to the unshifted beam with which it measures $-W \cdot \cos 2.5^\circ + V \cdot \sin 2.5^\circ$. The fringe pattern produced by the -15MHz and 21.5MHz shifted beams is sensitive to $0.7071 \cdot (U - W)$. At almost all locations the contribution from V to measurements in the UW plane was negligible. Again the 6.5MHz shifted beam is not used.

The VW optical system, shown separately in Figure F-2, produces three pairs of beams all of which lie in the same spanwise plane and converge on the same measurement volume. A pair of beams producing a fringe pattern sensitive to $-W \cdot \cos 3.1^\circ + V \cdot \sin 3.1^\circ$ enters the wind tunnel through its plexiglas floor. This pair includes the 6.5MHz shifted beam aligned vertically and the 21.5MHz shifted beam aligned at an angle of about 6° to the vertical. A second pair of beams (the unshifted and -15MHz shifted) also enters through the wind-tunnel floor but with its bisector at an angle of about 45° to the vertical. These beams form a fringe pattern sensitive to $0.7071(V - W)$. The third pair, comprising additional unshifted and -15MHz shifted beams (obtained using a beam splitter), enters the wind tunnel through one of its side walls. This pair produces fringes sensitive to $-V \cdot \cos 3.4^\circ$

+ $W \sin 3.4^\circ$. At each measurement location the signal produced by each pair of beams is measured separately while the other two pairs are blocked. This is necessary to eliminate interference between the different pairs.

The flow is seeded using a dioctyl phthalate smoke produced by the aerosol generator described by Simpson and Chew (1979), originally designed by Echols and Young (1963). Smoke is injected into the boundary layer through the slot located at the leading edge of the wind tunnel floor (see figure A.1-2). Some of the smoke discharged into the room returns through the centrifugal blower providing seeding particles in the free stream.

Light scattered from the measurement volume is collected through the side wall of the wind tunnel, about 20° away from the axis of the UV optics in the downstream direction. The scattered light is focused on to the 200 micron pinhole of a single photomultiplier tube by a large converging lens. This off-axis scattering arrangement makes the effective size of the UV and UW measurement volumes $0.3 \times 0.3 \times 0.6 \text{ mm}$ and $0.07 \times 0.3 \times 0.07 \text{ mm}$ in the X, Y and Z directions respectively. The effective size of the VW measurement volume is different for the different pairs of beams. The measurement volumes produced by those beams entering through the wind-tunnel floor have approximately the same dimensions as the UW measurement volume. However, for the pair of beams entering through the side wall the measurement volume dimensions are the same as those of the UV system.

In planes 1, 3, 4 and 5 data were obtained from the photomultiplier signal using fast-sweep-rate sampling spectrum analysis. This method, described in detail by Simpson and Barr (1974, 1975) and Simpson and Chew (1979) involves the detection of peaks in the output of a rapidly swept filter spectrum analyzer. This is a simple and accurate method that does not suffer from the bias errors present in other techniques, such as those using

particle averaging or slow-sweep-rate spectrum analysis. However, when using this method, only a fraction of those particles traversing the measurement volume are detected. This means that data obtained from different signals over the same period of time will not have been produced by the same set of seeding particles. The Reynolds shear stresses therefore cannot be obtained directly by multiplying the signals of different velocity components. Instead they are obtained using the mean square of signals that correspond to the difference of velocity components. The U-V, U-W and V-W signals produced by the optical systems described above enable the \overline{uv} , \overline{uw} and \overline{vw} shear stresses to be measured.

Measurements in planes 8 and 10 were made using a DANTEC Model 57N10 Burst Spectrum Analyzer (BSA). This device detects bursts in the photomultiplier signal then digitally calculates their spectrum to determine the instantaneous Doppler frequency. Both Doppler frequency and detection time are recorded enabling true time averages to be calculated. Since the BSA can monitor one signal at a time the Reynolds stresses were again obtained using the mean square of the signals that correspond to the difference in velocity components.

LDV measurements are presented in the following sections. To simplify the presentation for planes 3, 4, 5, 8 and 10 an additional coordinate 'S' is used. 'S' is distance measured from the wing surface along the plane as shown in figure F-1. Where necessary measurements have been corrected for velocity-gradient broadening (due to gradients in the Y direction) using the methods described by Durst *et al* (1981). In planes 1, 3, 4 and 5 corrections were also made for finite transit-time broadening (Durst *et al* (1981)) in measurements taken with the UW and VW optical systems. This error results from having only a small number of fringes in the measurement volume (i.e. a small measurement

volume diameter). It increases the measured turbulence intensity by an amount in proportion to the mean velocity while leaving the mean velocity unaffected. It is therefore easy to correct. Curiously, corrections for finite-transit-time broadening did not have to be applied to VW and UW measurements made with the BSA. The reasons for this are not fully understood. It may result from the fact that the BSA only takes the spectrum of the central part of the Doppler burst.

Uncertainty estimates for the measurements presented below are listed in table F-1. Some bias errors not included in these estimates may be present in measurements of turbulence quantities made outside of the boundary layer and very close to the test wall ($Y/T < 6 \times 10^{-3}$). Turbulence measurements in the free stream are unreliable because of a lack of seeding particles and inaccuracies in the corrections for finite-transit-time broadening. Very close to the wall the turbulence measurements may have been affected by inaccuracies in the velocity-gradient broadening correction. Turbulence measurements (particularly Reynolds shear stresses) immediately downstream of the wing trailing edge in plane 10 may also be in error to velocity gradient broadening in the spanwise direction and small inaccuracies in spanwise position here of the order of .5mm.

		PLANE 1	PLANE 3	PLANE 4	PLANE 4
VALUE OF:	X/T	$-2. \times 10^{-1}$	-4.6×10^{-2}	4.6×10^{-1}	3.8×10^{-1}
	Y/T	1.9×10^{-2}	1.6×10^{-2}	9.6×10^{-3}	1.8×10^{-1}
	Z/T	0	-5.2×10^{-1}	-5.1×10^{-1}	-9.6×10^{-1}
	U/U _{ref}	-3.4×10^{-1}	2.8×10^{-1}	1.1×10^0	9.5×10^{-1}
	W/U _{ref}	7.1×10^{-3}	-6.6×10^{-1}	-5.4×10^{-1}	-2.3×10^{-1}
	$\overline{u^2}/U_{ref}^2$	5.2×10^{-2}	3.9×10^{-2}	2.3×10^{-3}	3.6×10^{-3}
	\overline{uv}/U_{ref}^2	7.0×10^{-3}	4.5×10^{-3}	-2.4×10^{-4}	-1.2×10^{-3}
UNCERTAINTY IN:	U/U _{ref}	2.5×10^{-2}	3.5×10^{-2}	3.7×10^{-2}	3.6×10^{-2}
	V/U _{ref}	2.5×10^{-2}	3.5×10^{-2}	3.5×10^{-2}	3.5×10^{-2}
	W/U _{ref}	2.5×10^{-2}	3.6×10^{-2}	3.6×10^{-2}	3.5×10^{-2}
	$\overline{u^2}/U_{ref}^2$	1.6×10^{-3}	1.3×10^{-3}	1.4×10^{-4}	1.9×10^{-4}
	$\overline{v^2}/U_{ref}^2$	7.5×10^{-4}	4.4×10^{-4}	1.5×10^{-4}	1.4×10^{-4}
	$\overline{w^2}/U_{ref}^2$	4.3×10^{-4}	1.0×10^{-3}	3.0×10^{-4}	2.0×10^{-4}
	\overline{uv}/U_{ref}^2	1.3×10^{-3}	1.1×10^{-3}	1.5×10^{-4}	2.0×10^{-4}
	\overline{uw}/U_{ref}^2	-	9.2×10^{-4}	2.2×10^{-4}	2.1×10^{-4}
	\overline{vw}/U_{ref}^2	-	9.6×10^{-4}	2.2×10^{-4}	1.5×10^{-4}

TABLE F-1. ESTIMATES OF UNCERTAINTY IN LDV MEASUREMENTS

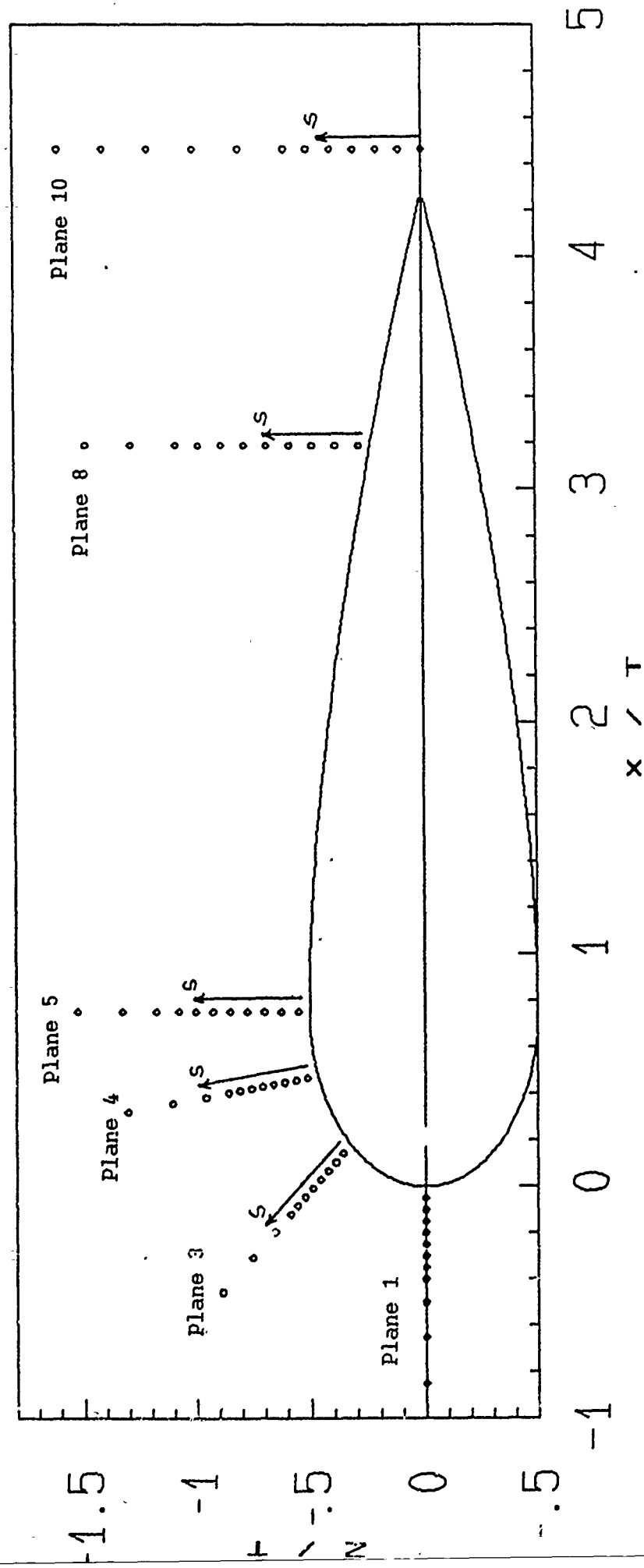


Figure F-1 Locations of the LDV profiles.

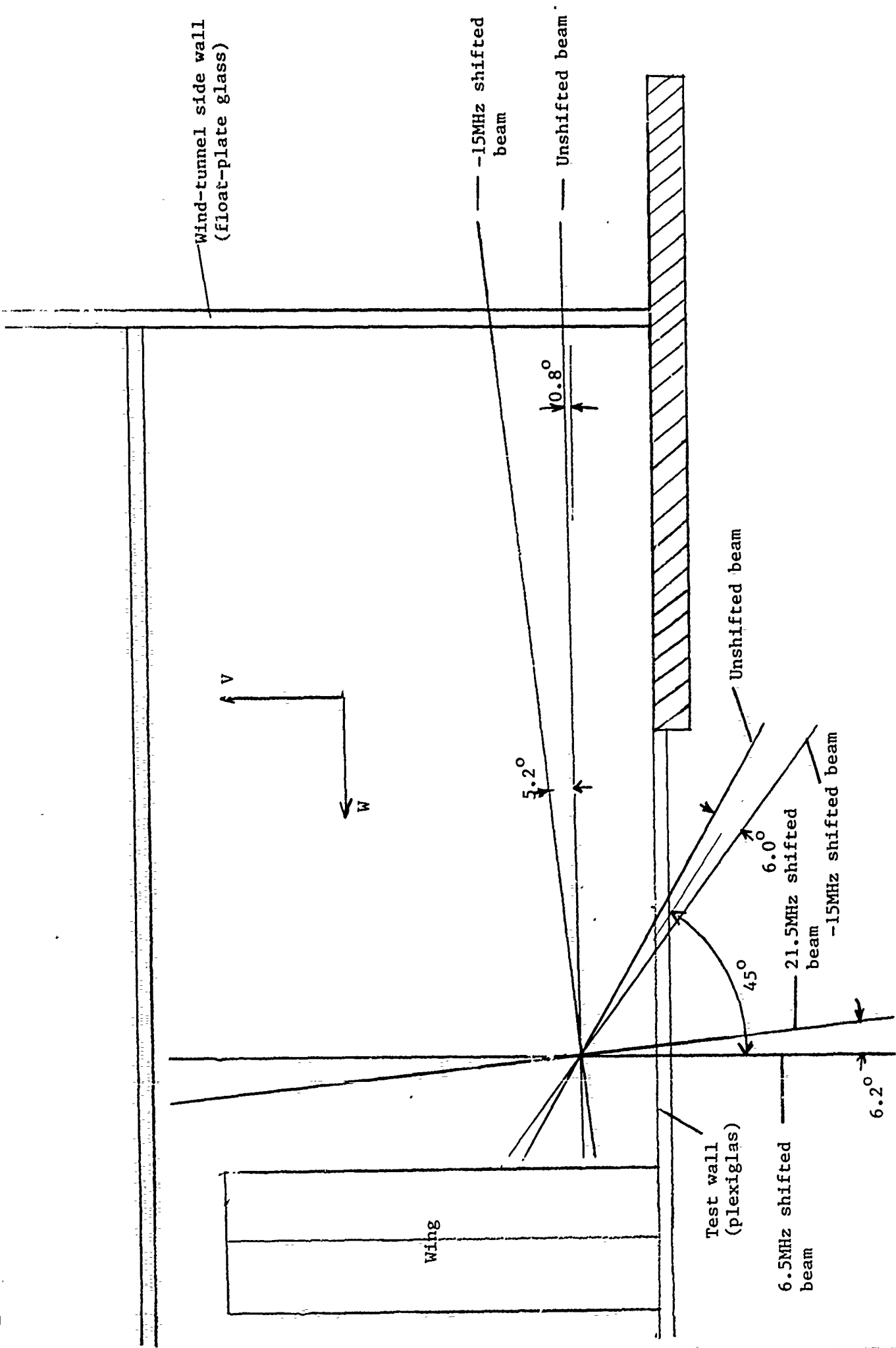


Figure F-1 The VW optical system of the laser anemometer as seen from downstream.

F.1 LDV MEASUREMENTS IN PLANE 1

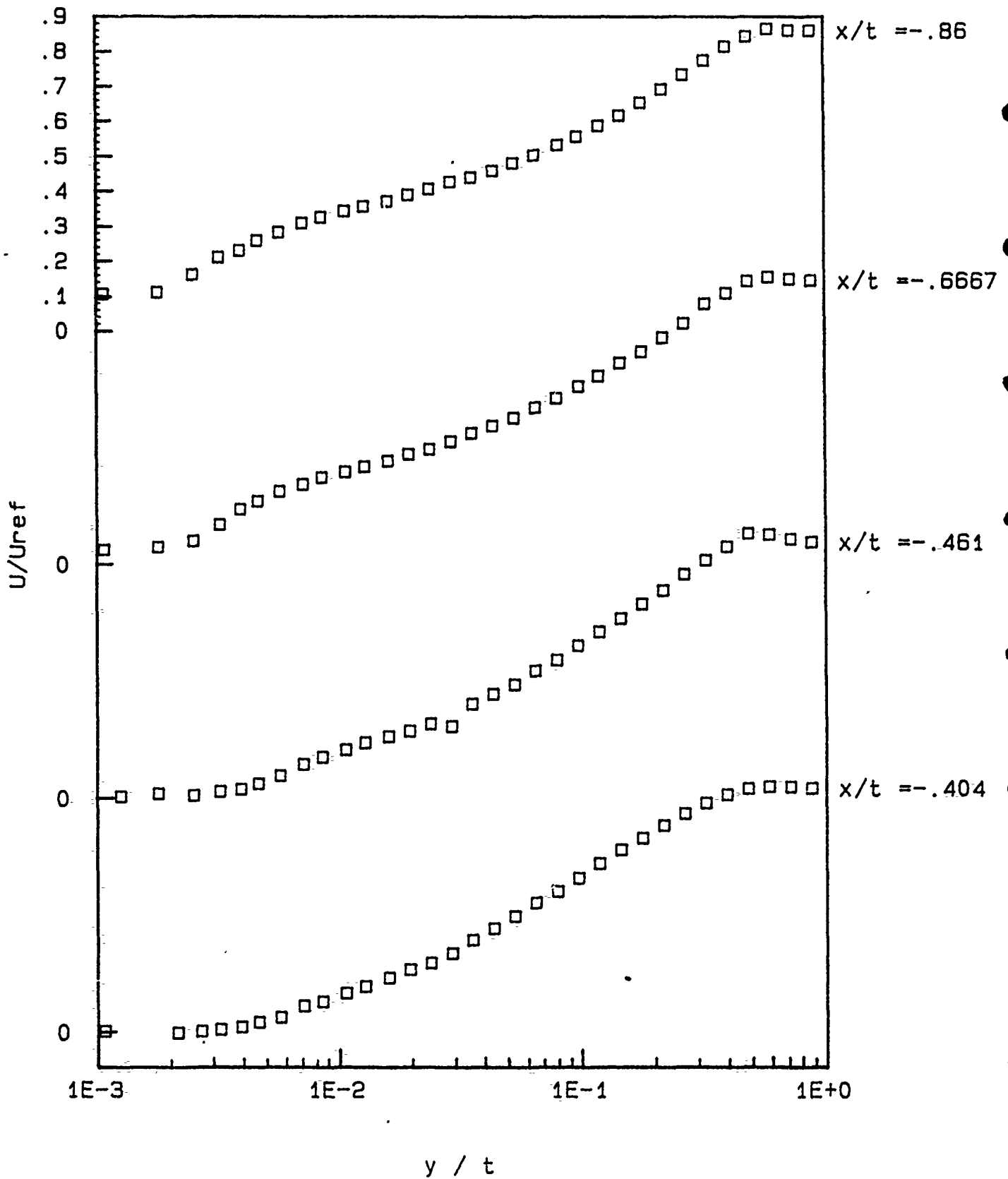


Figure F.1-1(a) Profiles of mean-velocity component U , plane 1.

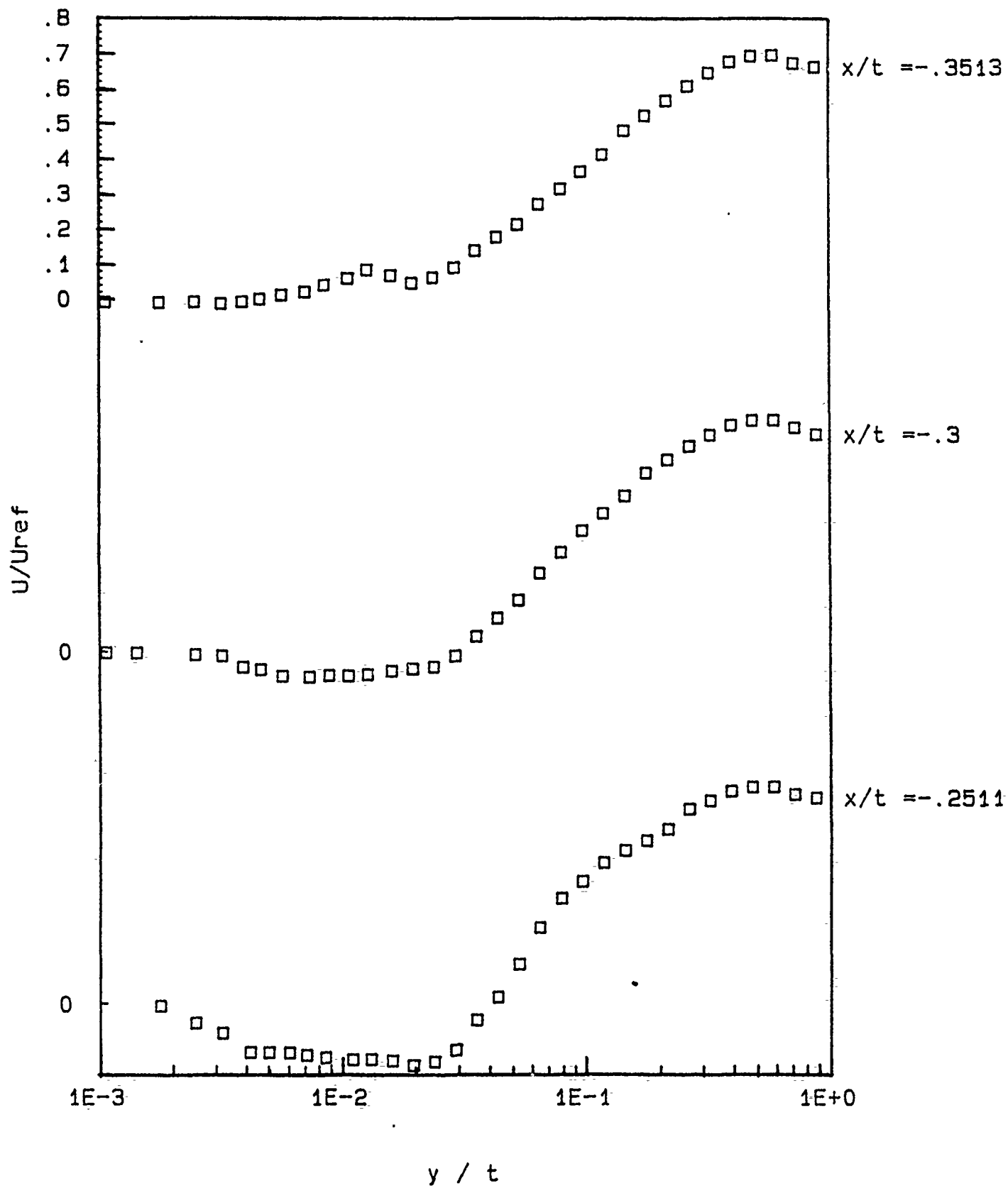


Figure F.1-1(b) Profiles of mean-velocity component U, plane 1.

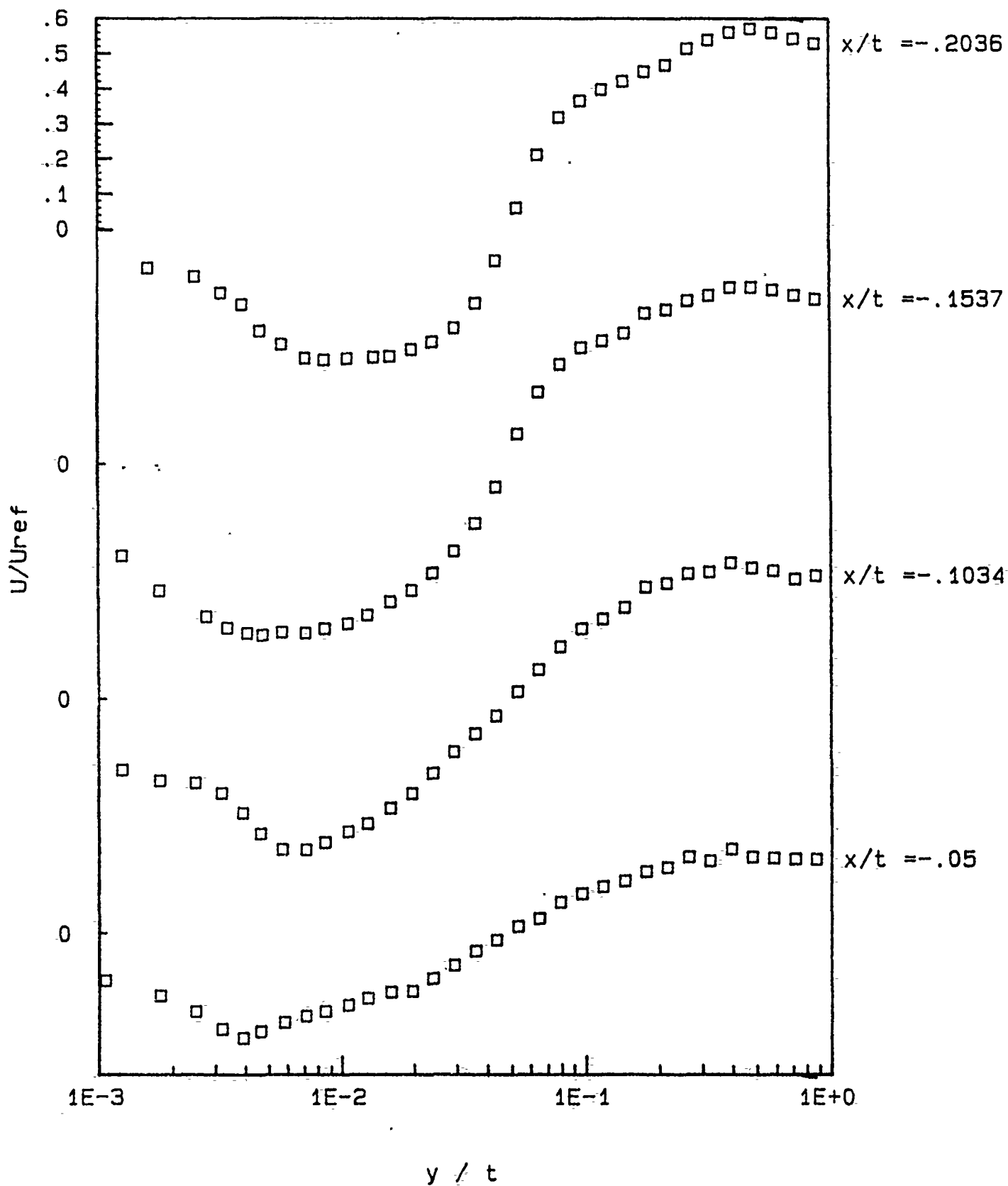


Figure F.1-1(c) Profiles of mean-velocity component U , plane 1.

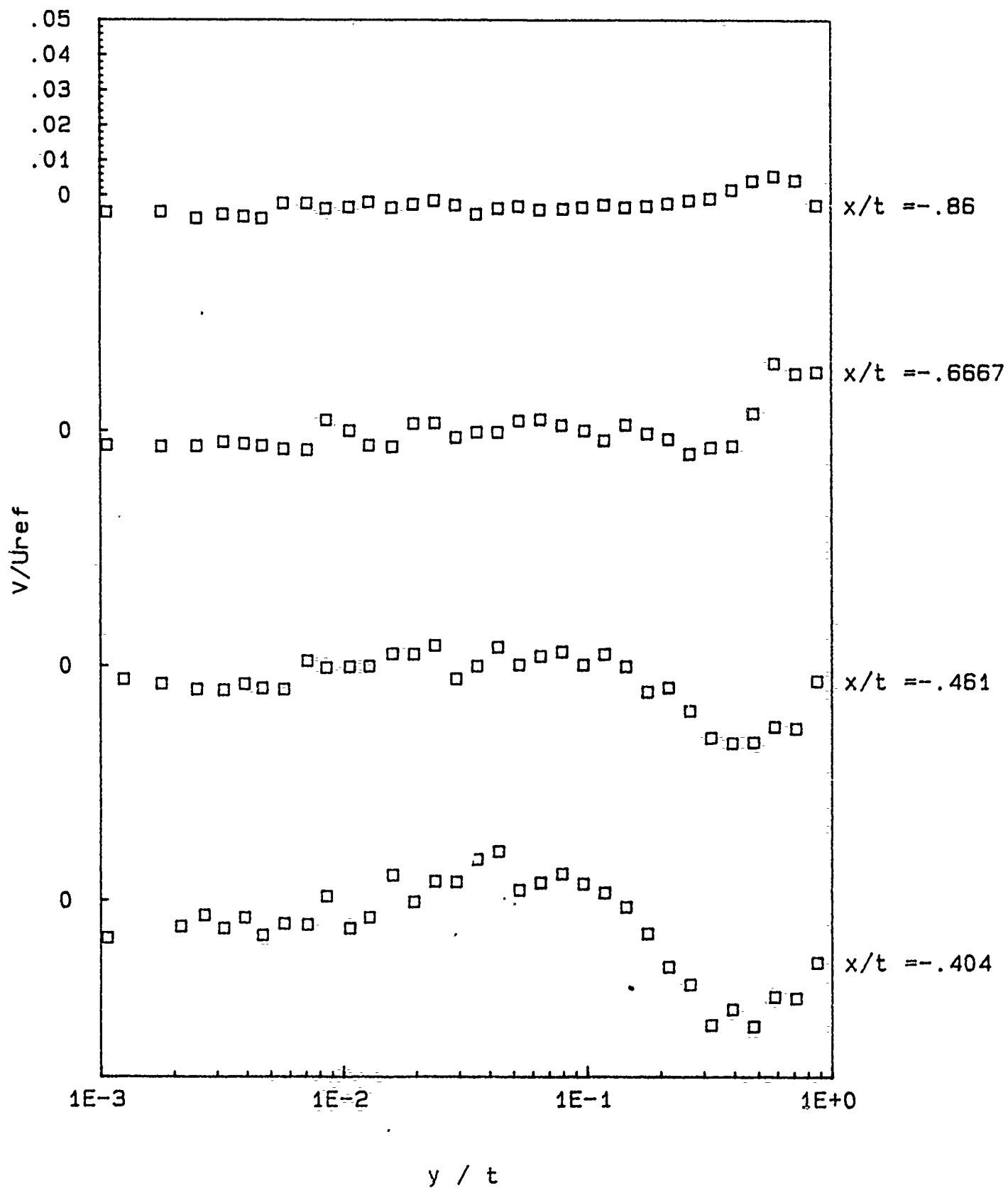


Figure F.1-2(a) Profiles of mean-velocity component V , plane 1.

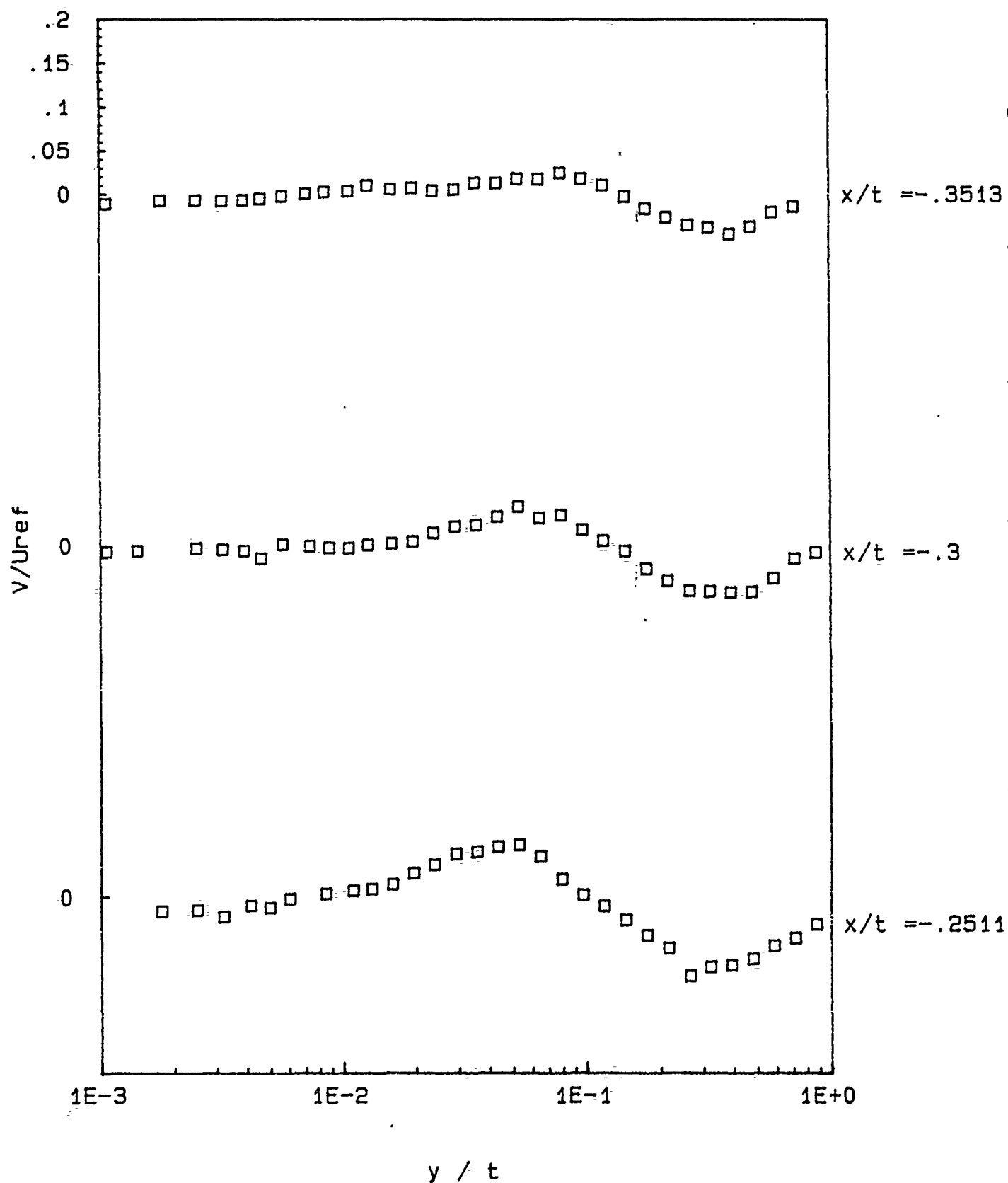


Figure F.1-2(b) Profiles of mean-velocity component V, plane 1.

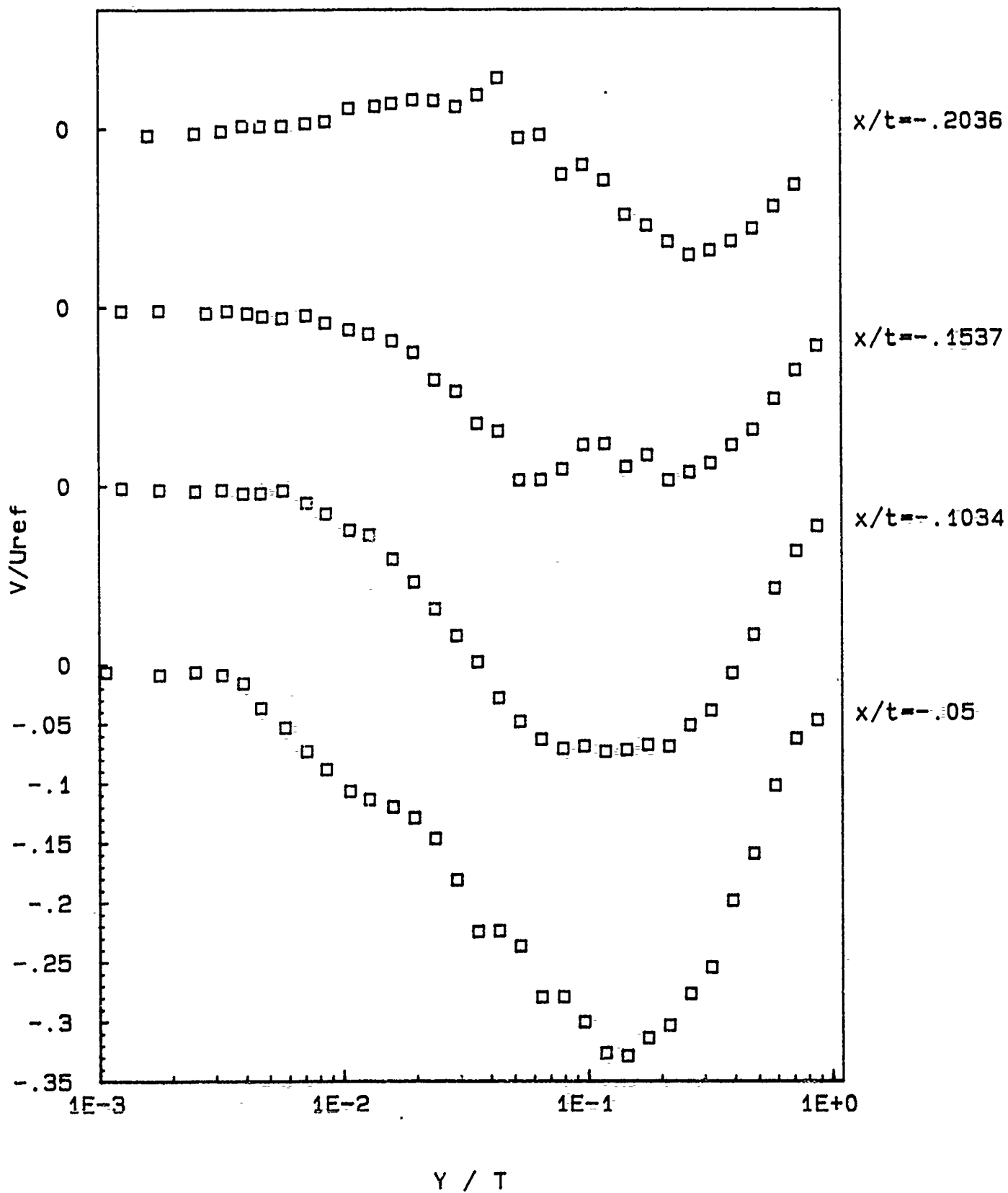


Figure F.1-2(c) Profiles of mean-velocity component V, plane 1.

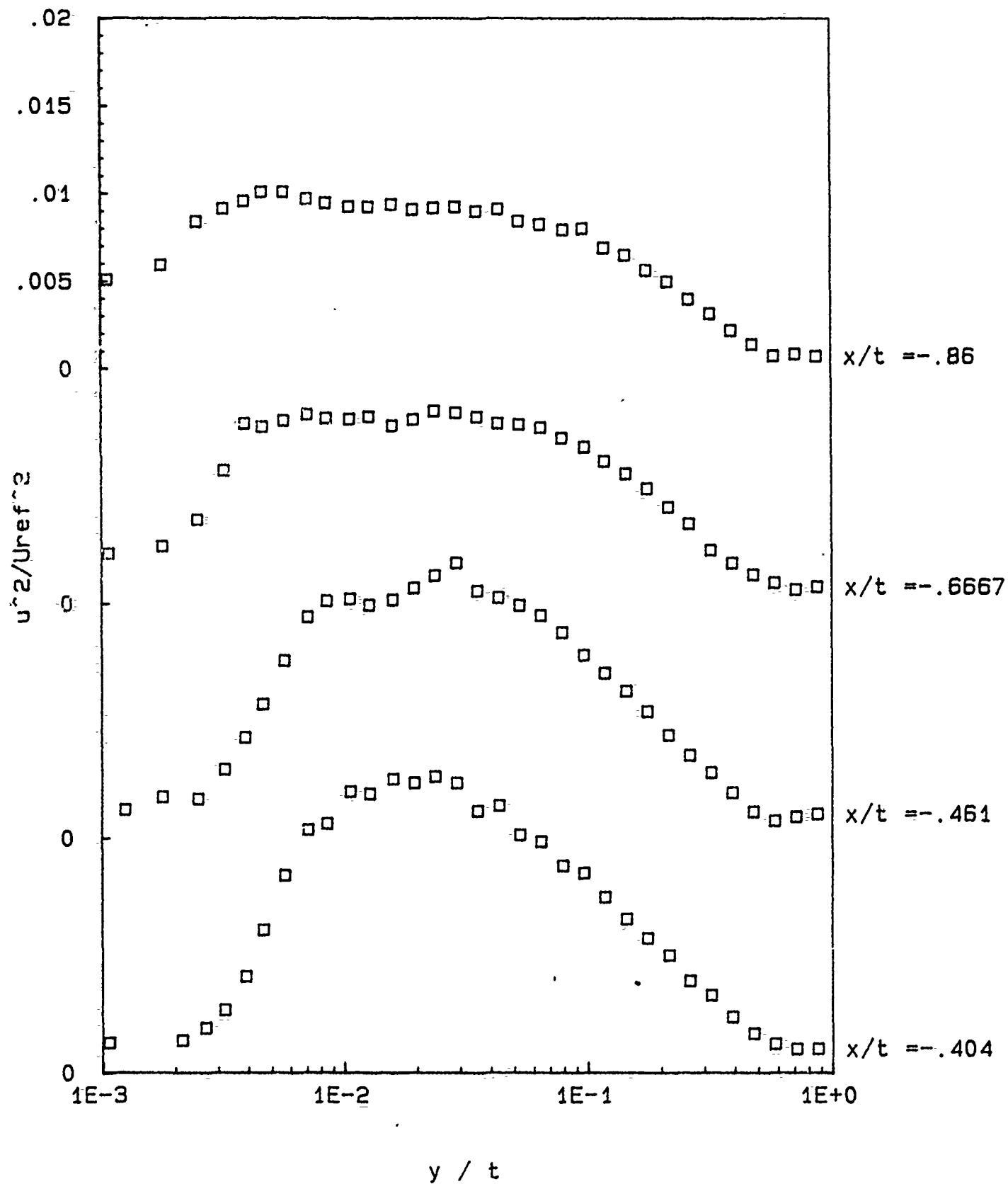


Figure F.1-3(a) Profiles of the U component of turbulence normal stress, plane 1.

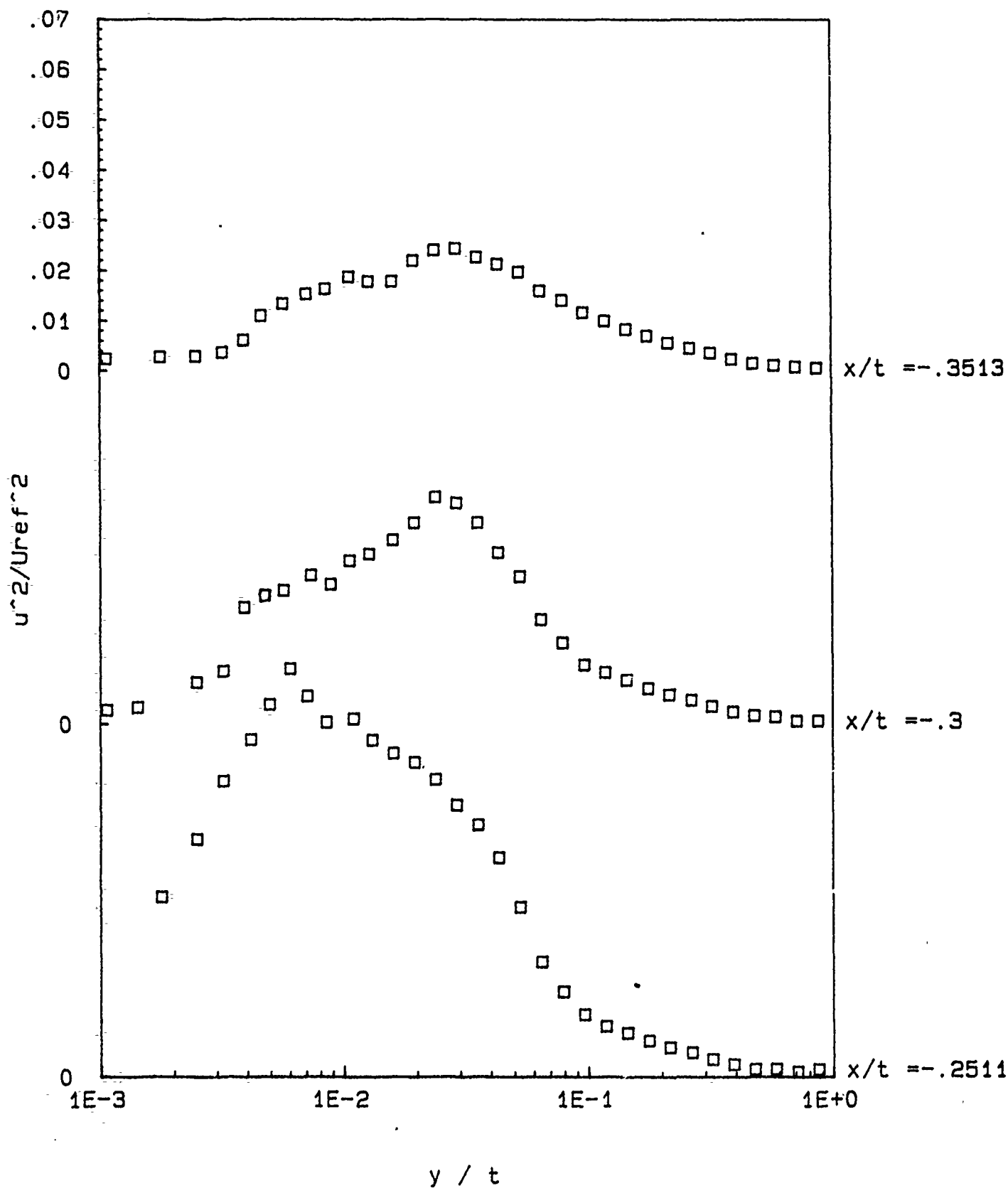


Figure F.1-3(b) Profiles of the U component of turbulence normal stress, plane 1.

4c

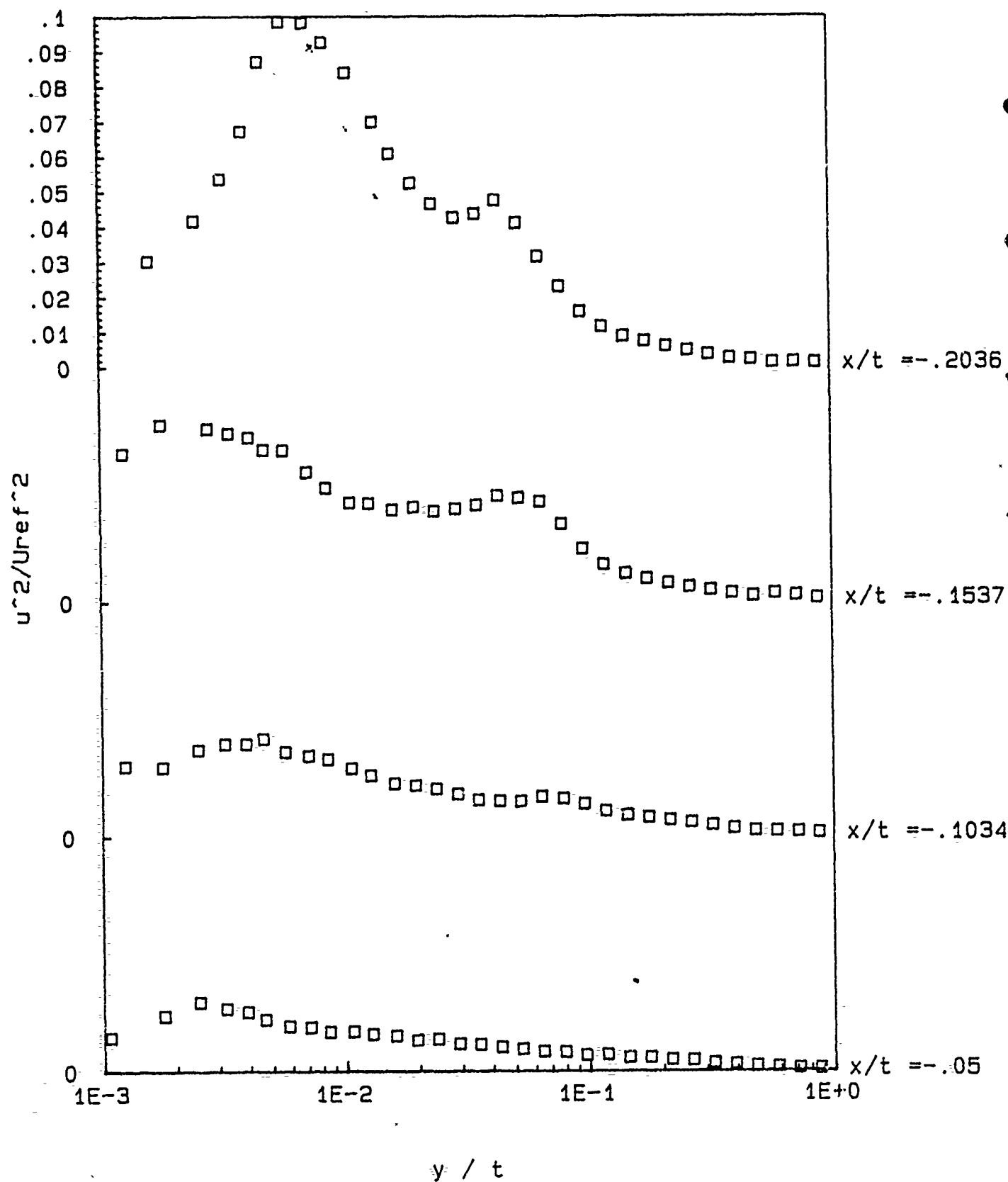


Figure F.1-3(c) Profiles of the U component of turbulence normal stress, plane 1.

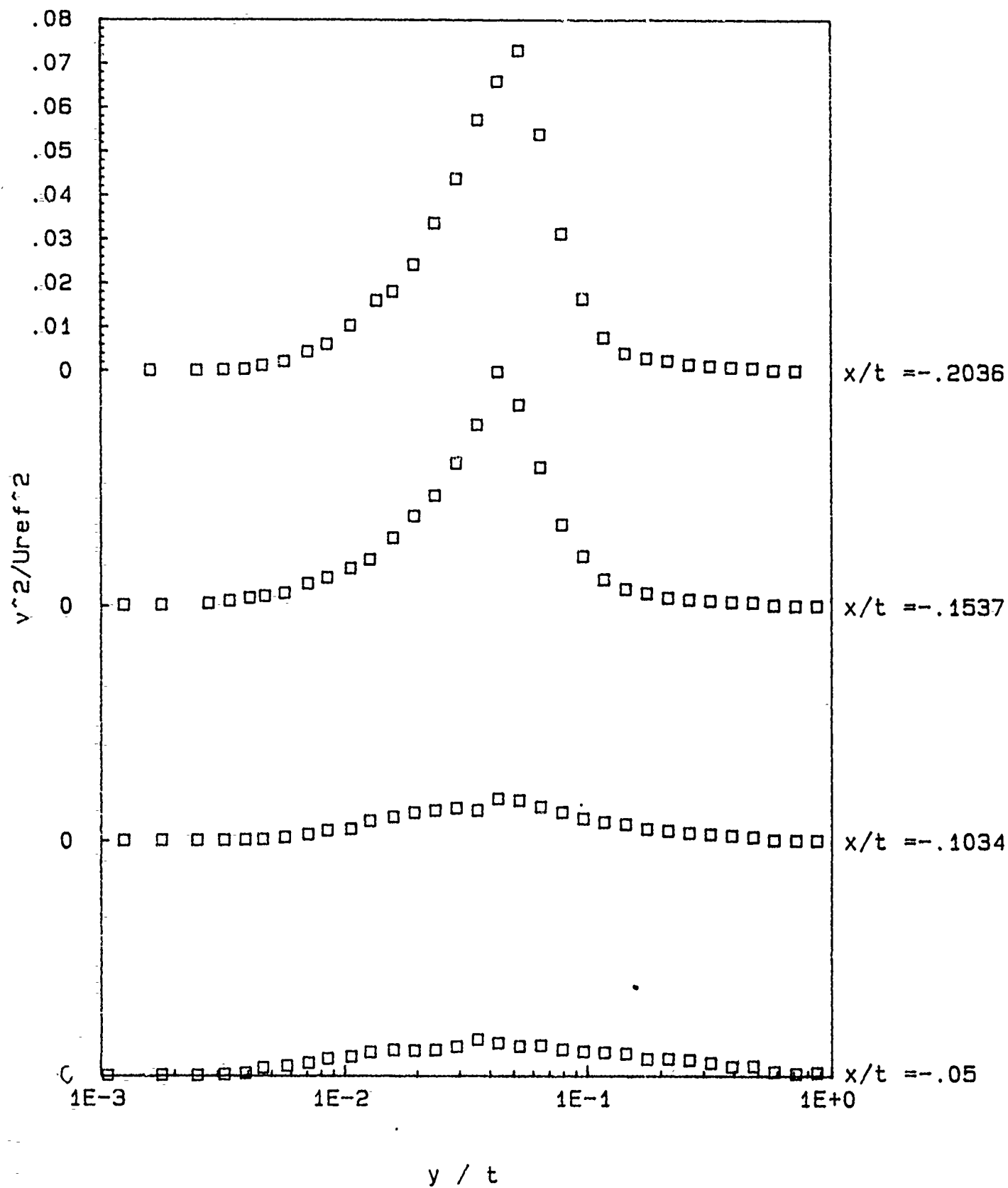


Figure F.1-4(a) Profiles of the V component of turbulence normal stress, plane 1.

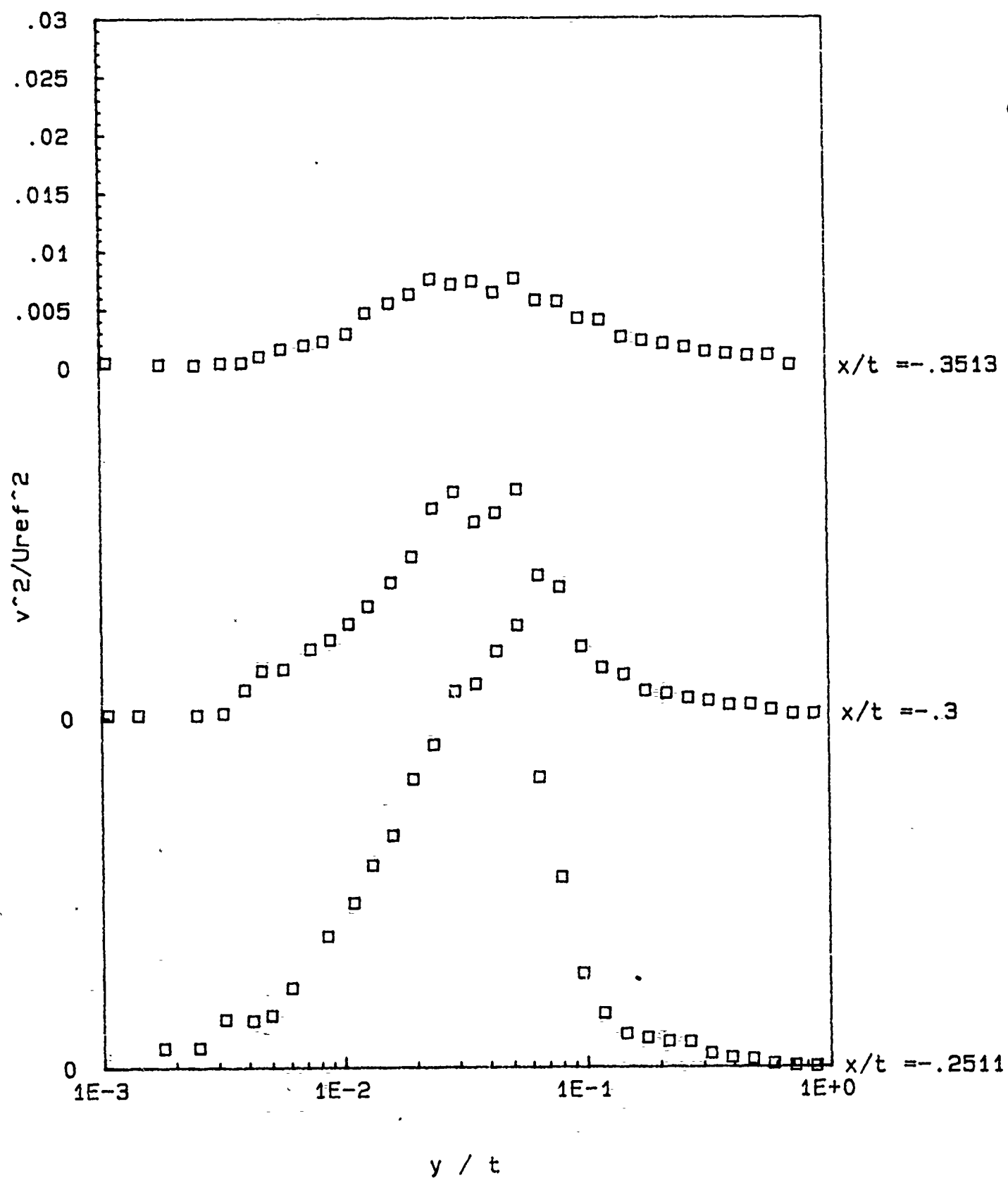


Figure F.1-4(b) Profiles of the V component of turbulence normal stress, plane 1.

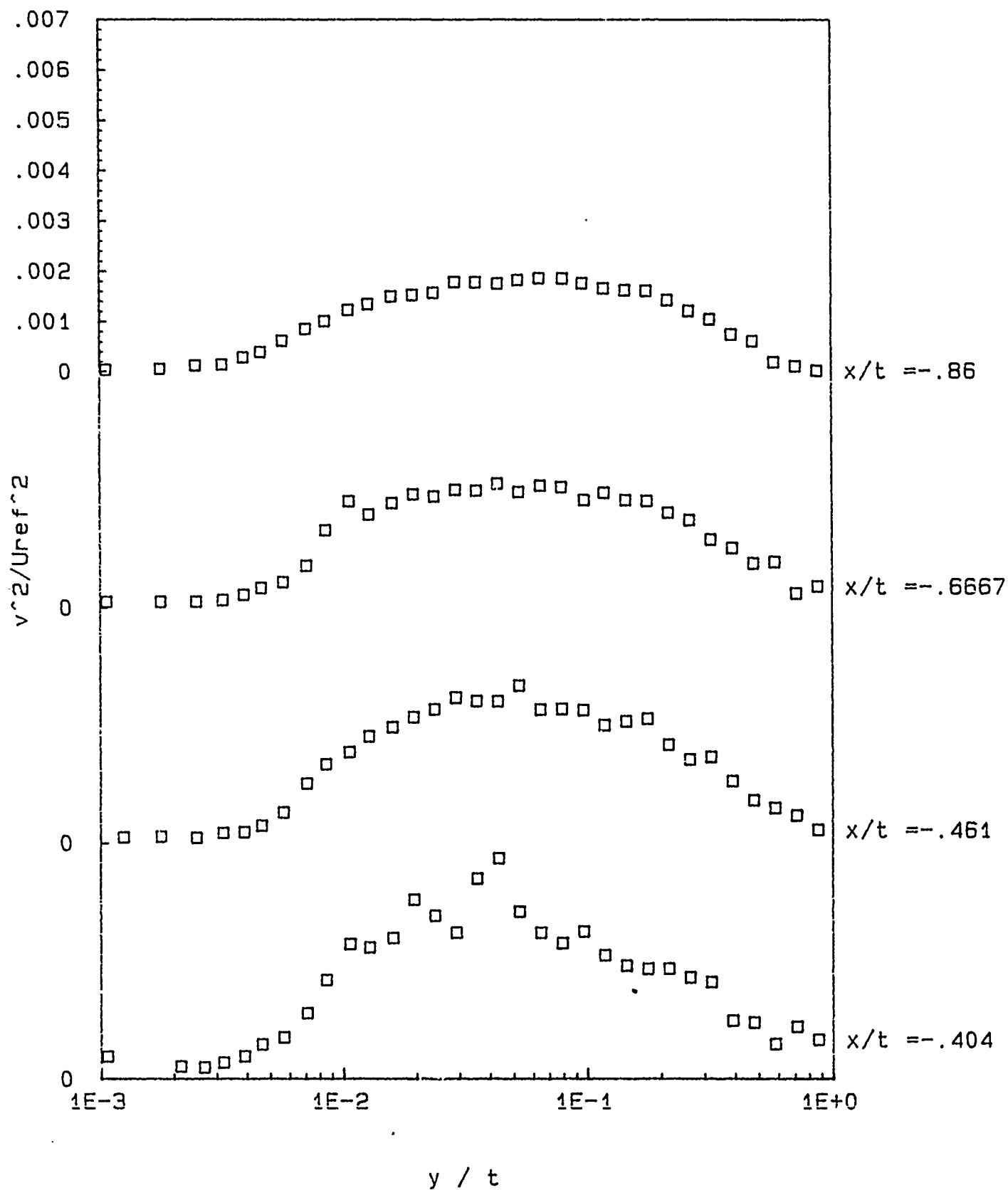


Figure F.1-4(c) Profiles of the V component of turbulence normal stress, plane 1.

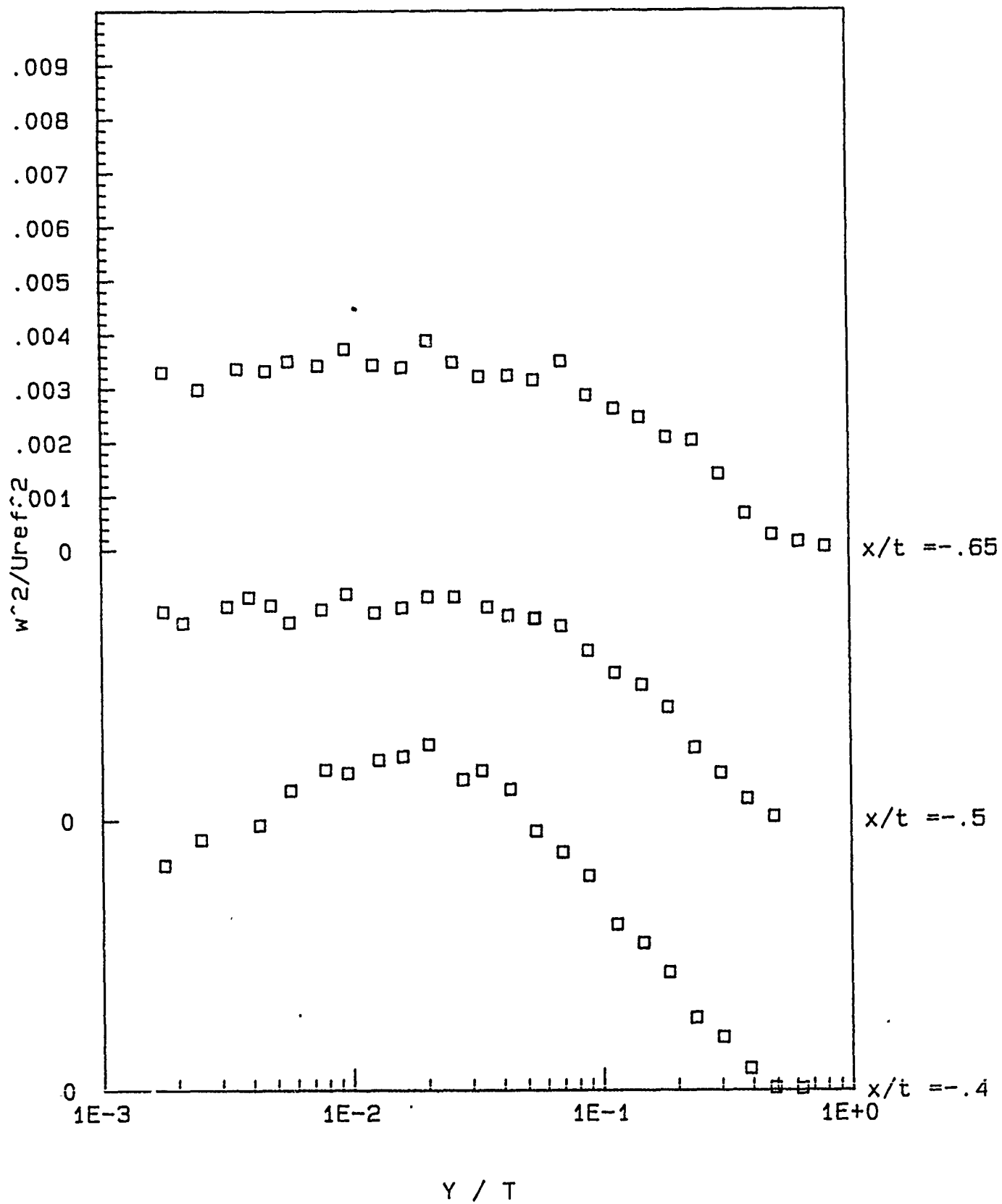


Figure F.1-5(a) Profiles of the W component of turbulence normal stress, plane 1.

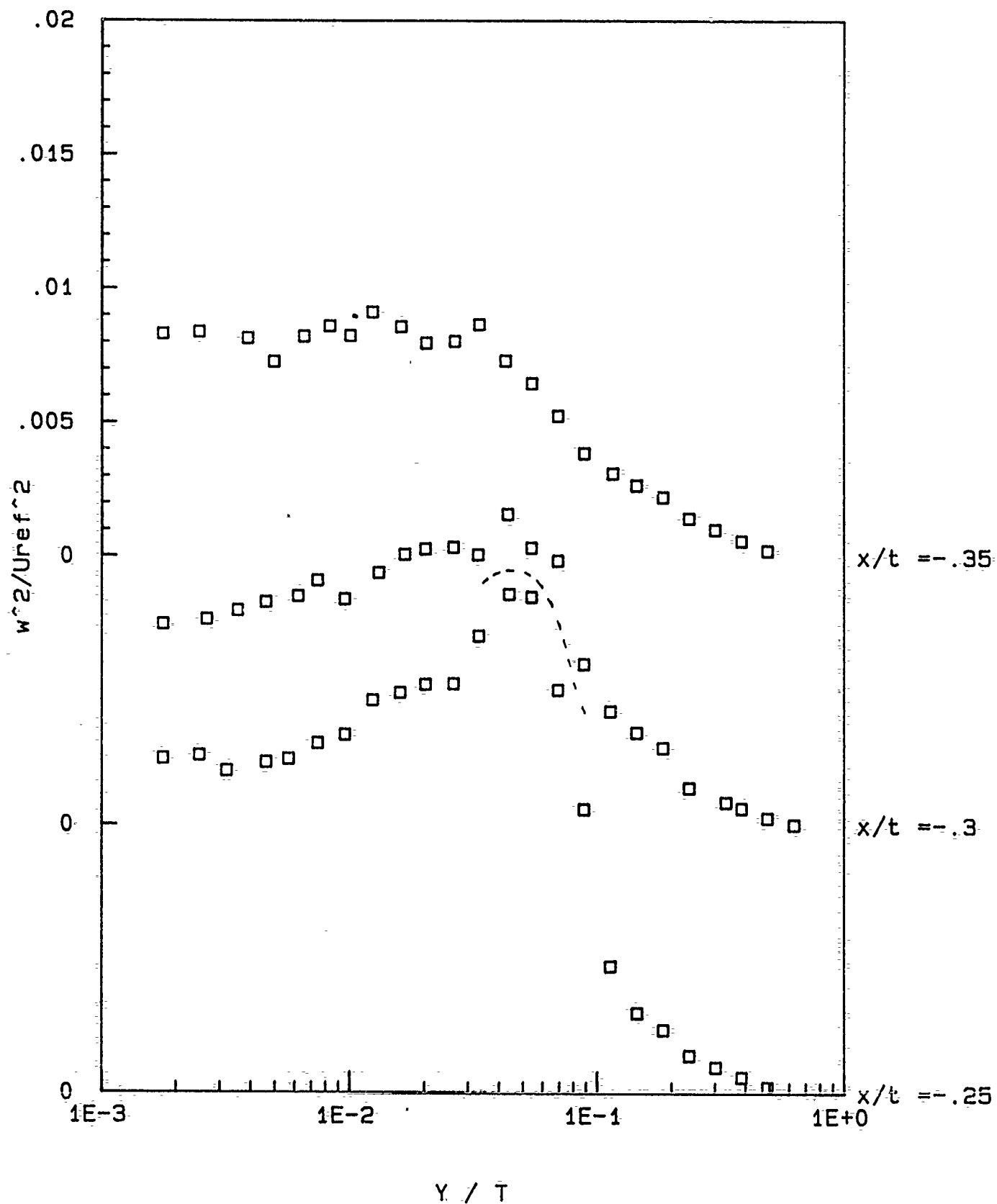


Figure F.1-5(b) Profiles of the W component of turbulence normal stress, plane 1.

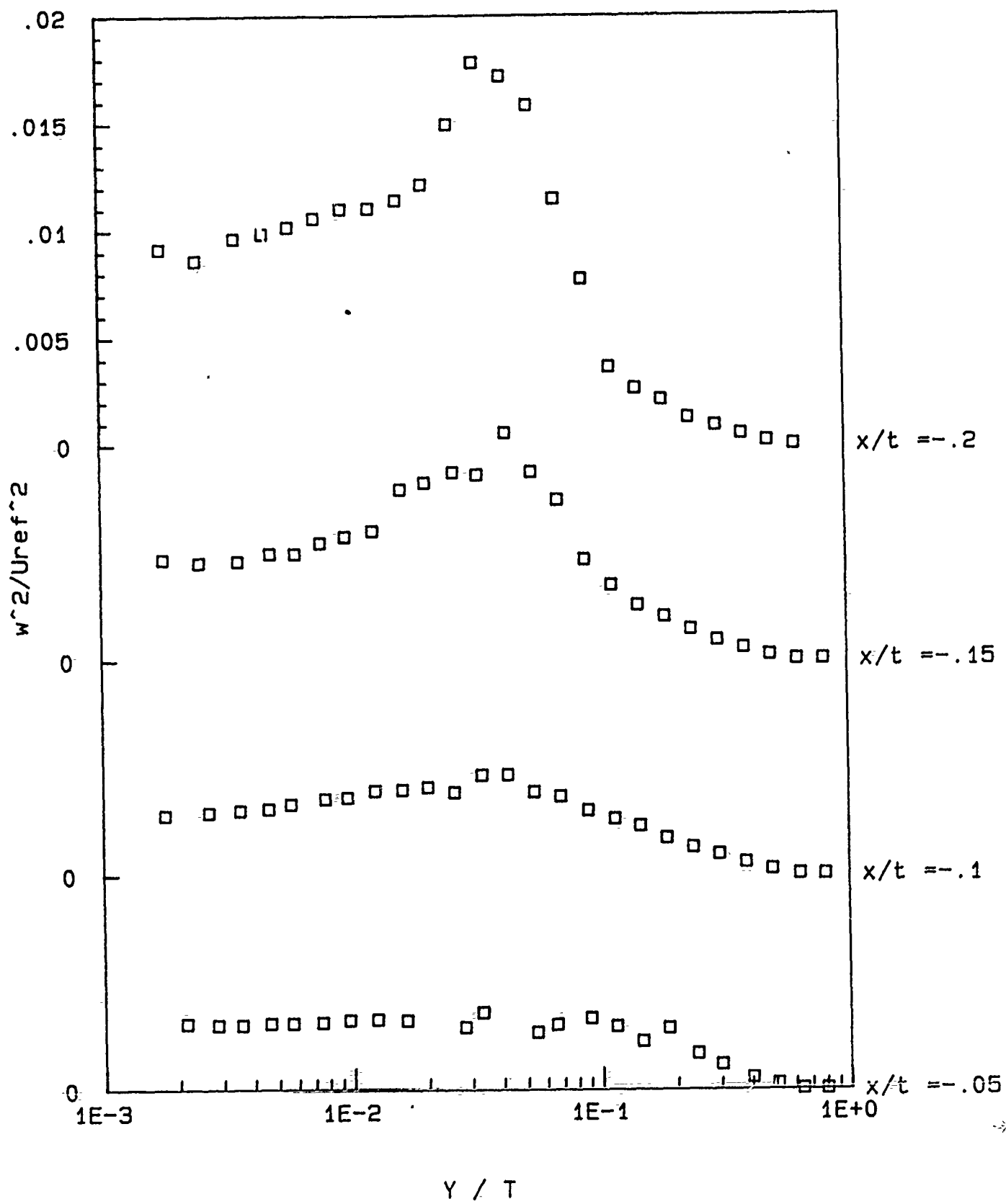


Figure F.1-5(c) Profiles of the W component of turbulence normal stress, plane 1.

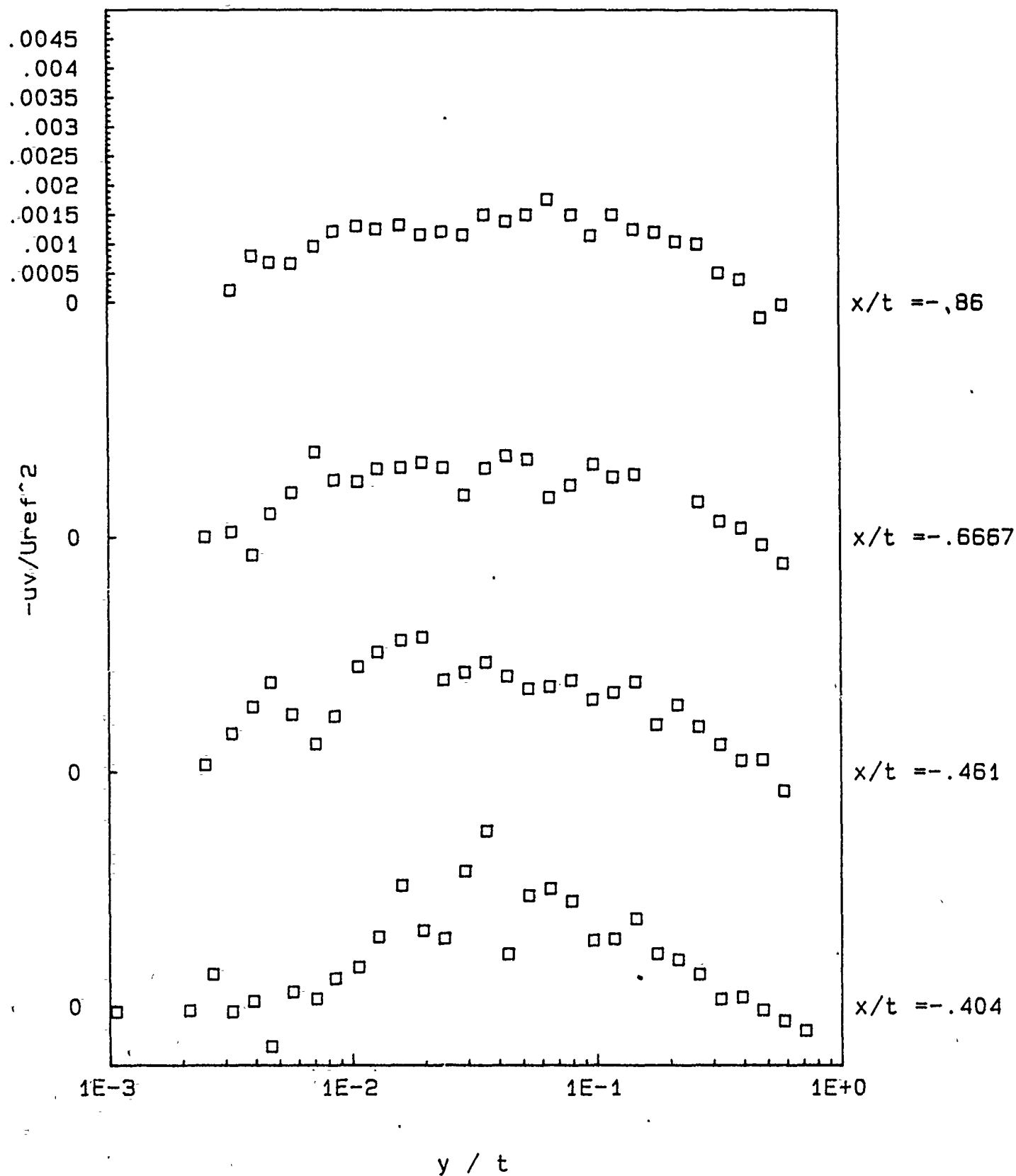


Figure F.1-6(a) Profiles of UV Reynolds shear stress, plane 1.

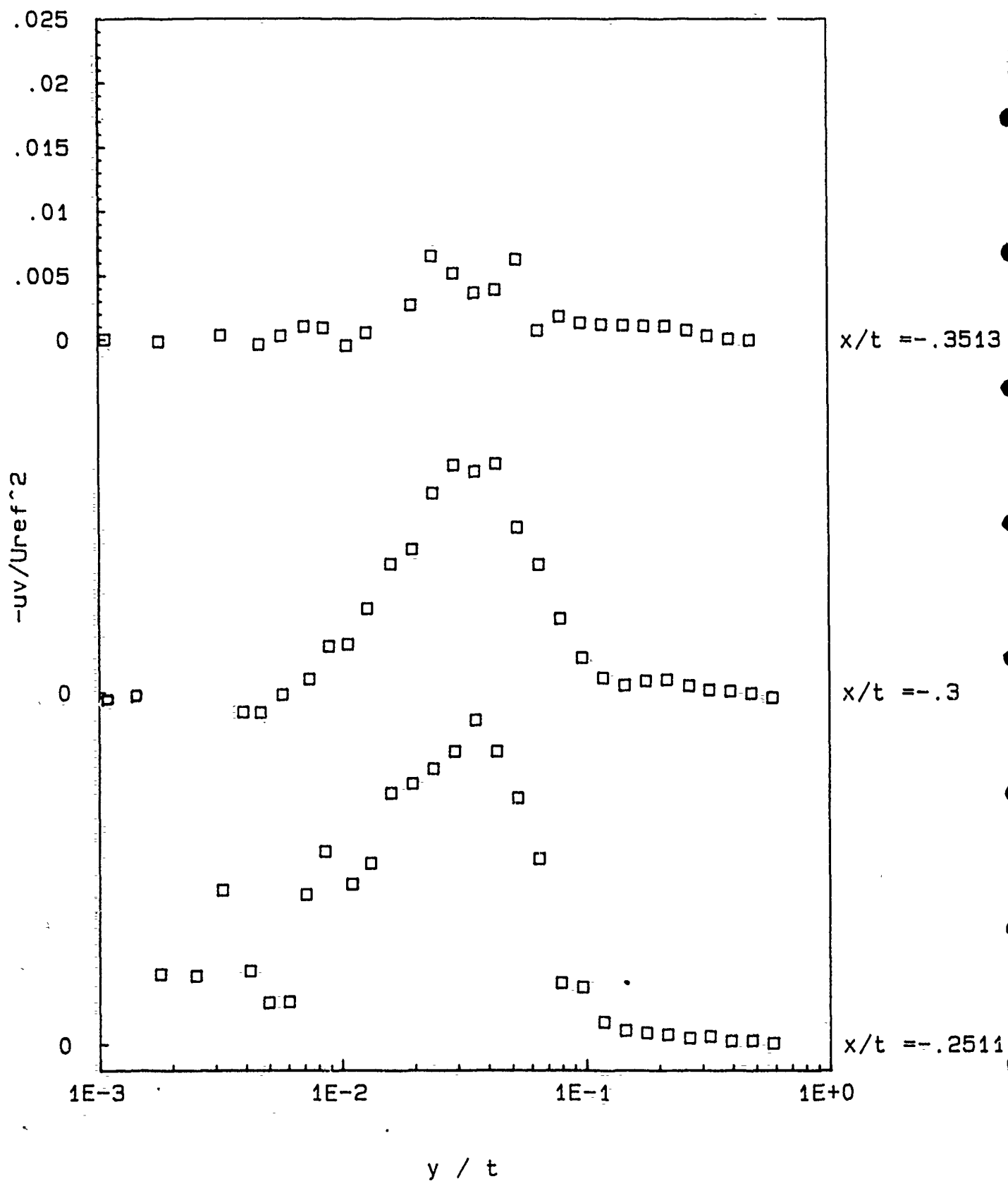


Figure F.1-6(b) Profiles of UV Reynolds shear stress, plane 1.

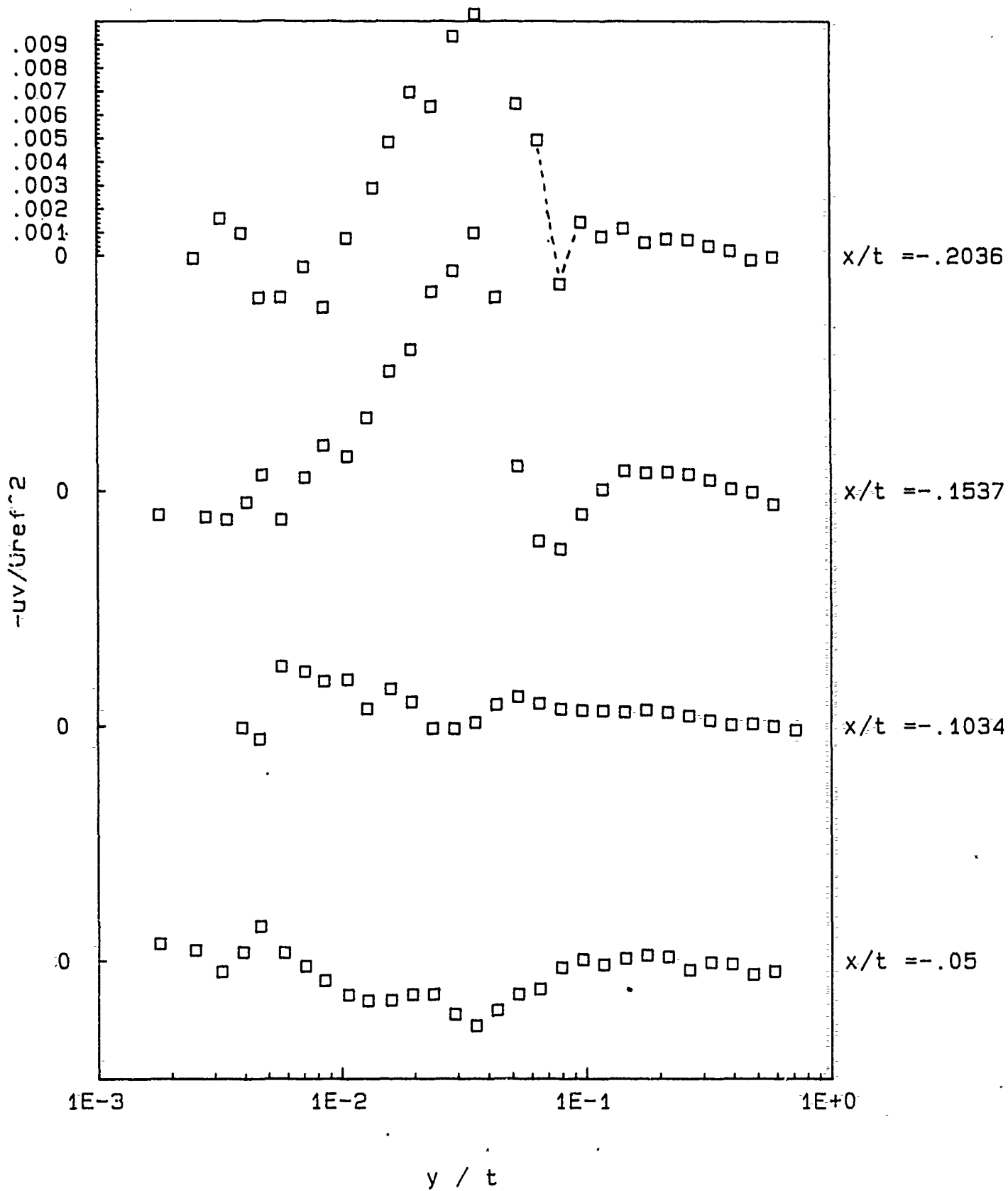


Figure F.1-6(c) Profiles of UV Reynolds shear stress, plane 1.

File E230770.RES
 U and V component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 26
 density (kilograms per meter cubed) = 1.099213
 viscosity (meters squared per second) = 1.678899E-05
 Atmospheric pressure (Pascals) = 94370
 Velocity of undisturbed free stream (Uref, in m/s) = 27.53919
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09426E-03
 Estimated momentum thickness Reynolds number = 6734.938
 Location of traverse: X/T = -.86 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	1.0526E-01	5.0815E-03	6.5237E-01	-1.7206E-01	9.7867E-01	-4.7951E-03	4.4173E-05	1.1222E-01	4.0965E-01	
1.7705E-03	1.0981E-01	5.9204E-03	8.1587E-01	2.4640E-01	9.8100E-01	-4.6194E-03	6.1412E-05	1.1869E-01	7.9564E-01	
2.4788E-03	1.6126E-01	8.3944E-03	4.0562E-01	4.0357E-01	9.8852E-01	-6.5147E-03	1.2907E-04	-7.0897E-01	1.3894E+00	
3.1870E-03	2.1111E-01	9.1332E-03	2.1794E-01	4.1486E-01	9.9644E-01	-5.2921E-03	1.4898E-04	-1.7438E-01	7.3012E-01	-2.1042E-04
3.8952E-03	2.3060E-01	9.5669E-03	2.5903E-01	4.4355E-01	1.0000E+00	-5.9613E-03	2.9166E-04	-3.0080E-01	1.2249E+00	-8.0037E-04
4.6034E-03	2.5853E-01	1.0086E-02	6.4721E-02	4.1436E-01	1.0000E+00	-6.5045E-03	3.9883E-04	-3.0268E-01	8.0208E-01	-6.8859E-04
5.6657E-03	2.8246E-01	1.0087E-02	6.3304E-02	3.1332E-01	1.0000E+00	-2.1310E-03	6.2297E-04	-4.0576E-01	9.1995E-01	-6.7011E-04
7.0822E-03	3.0873E-01	9.6760E-03	4.3550E-03	2.6601E-01	1.0000E+00	-2.1835E-03	8.5516E-04	-1.1427E-01	6.1973E-01	-9.6601E-04
8.4982E-03	3.2564E-01	9.4486E-03	4.7797E-02	2.8751E-01	1.0000E+00	-3.6331E-03	1.0127E-03	-8.9564E-02	4.7234E-01	-1.2171E-03
1.0623E-02	3.4317E-01	9.2494E-03	-6.2098E-02	2.4283E-01	1.0000E+00	-3.2455E-03	1.2351E-03	-1.6781E-02	2.6948E-01	-1.3106E-03
1.2748E-02	3.5619E-01	9.7312E-03	5.2992E-02	1.9228E-01	1.0000E+00	-1.7897E-03	1.3482E-03	6.4030E-02	8.5094E-02	-1.2607E-03
1.5935E-02	3.7117E-01	9.3700E-03	-3.8453E-02	2.4876E-01	1.0000E+00	-3.4015E-03	1.5019E-03	1.4479E-01	1.0542E-01	-1.3299E-03
1.9478E-02	3.8978E-01	9.0817E-03	4.0679E-02	2.5737E-01	1.0000E+00	-2.4551E-03	1.5300E-03	1.2585E-01	1.3669E-03	-1.1642E-03
2.3725E-02	4.0634E-01	9.1758E-03	-4.0627E-04	2.8203E-01	1.0000E+00	-1.3691E-03	1.5724E-03	1.0795E-01	1.0101E-02	-1.2100E-03
2.9037E-02	4.2886E-01	9.7288E-03	-2.1074E-02	3.157E-01	1.0000E+00	-2.7303E-03	1.7881E-03	1.8196E-01	1.0384E-01	-1.1581E-03
3.5411E-02	4.3883E-01	8.9877E-03	-3.1887E-02	2.7663E-01	1.0000E+00	-5.2276E-03	1.7836E-03	1.0059E-01	5.5171E-02	-1.5022E-03
4.3555E-02	4.5816E-01	9.1066E-03	-1.3372E-01	2.1337E-01	1.0000E+00	-3.5845E-03	1.7597E-03	1.1471E-01	-6.7053E-02	-1.3920E-03
5.2762E-02	4.7644E-01	8.4105E-03	-1.0944E-01	3.2642E-01	1.0000E+00	-3.0033E-03	1.8285E-03	6.0597E-02	9.1154E-02	-1.5050E-03
6.4448E-02	5.0257E-01	8.2296E-03	-1.1783E-01	2.9810E-01	1.0000E+00	-3.9690E-03	1.8633E-03	1.1268E-01	3.0428E-02	-1.7628E-03
8.0382E-02	5.3249E-01	7.9352E-03	-1.4178E-01	2.7859E-01	1.0000E+00	-3.7091E-03	1.8633E-03	6.198E-02	3.2069E-02	-1.5016E-03
9.6317E-02	5.5639E-01	7.9941E-03	-9.8731E-02	2.4156E-01	1.0000E+00	-3.2559E-03	1.7658E-03	1.8203E-01	3.9175E-02	-1.1428E-03
1.1792E-01	5.8701E-01	6.8942E-03	-2.0065E-01	2.1797E-01	1.0000E+00	-2.5534E-03	1.6640E-03	1.3848E-01	6.1364E-02	-1.5028E-03
1.4377E-01	6.1599E-01	6.4835E-03	-2.1017E-01	1.5909E-01	1.0000E+00	-3.3155E-03	1.6251E-03	2.1504E-01	2.1753E-02	-1.2536E-03
1.7564E-01	6.5292E-01	5.6249E-03	-2.4581E-01	2.1541E-01	1.0000E+00	-2.9232E-03	1.6139E-03	1.6283E-01	4.6970E-02	-1.2038E-03
2.1459E-01	6.9172E-01	4.9740E-03	-3.4997E-01	3.6379E-02	1.0000E+00	-2.1856E-03	1.4316E-03	1.7553E-01	5.373E-02	-1.0018E-03
2.6204E-01	7.3121E-01	3.7794E-03	-4.5803E-01	6.2021E-02	1.0000E+00	-1.2974E-03	1.2172E-03	2.5246E-01	5.3573E-02	-1.0018E-03
3.1976E-01	7.7374E-01	3.1402E-03	-4.5345E-01	1.5875E-01	1.0000E+00	-7.2446E-04	1.0501E-03	3.3898E-01	3.9654E-01	-5.1331E-04
3.9093E-01	8.1369E-01	2.1907E-03	-3.4966E-01	4.4867E-02	1.0000E+00	1.6996E-03	7.4772E-04	2.0258E-01	2.5951E-01	-3.9673E-04
4.7734E-01	8.4209E-01	1.4070E-03	-4.0535E-01	1.9617E-01	1.0000E+00	4.3013E-03	6.1385E-04	2.9067E-01	5.5111E-01	-2.5691E-04
5.8286E-01	8.6366E-01	7.4725E-04	1.4413E-01	3.1313E-01	1.0000E+00	5.6113E-03	1.9671E-04	2.6196E-01	-1.6680E-01	3.4421E-05
7.1211E-01	8.5905E-01	8.6407E-04	-1.1017E-01	3.2299E-01	1.0000E+00	4.4125E-03	1.1855E-04	5.4912E-02	-4.9354E-01	
8.6969E-01	8.5837E-01	7.3727E-04	6.6547E-03	-5.5007E-01	1.0000E+00	-2.5935E-03	3.3007E-05	2.6206E-01	-7.1713E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-1 U and V component velocity measurements made at X/T = -.86 with the laser anemometer, plane 1.

File E231770.RES

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 27.1

density (kilograms per meter cubed) = 1.103308

viscosity (meters squared per second) = 1.675057E-05

Atmospheric pressure (Pascals) = 95070

Velocity of undisturbed free stream (Uref, in m/s) = 27.68912

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089817E-03

Estimated momentum thickness Reynolds number = 6779.770

Location of traverse; X/T = -.667 Z/T = 0

Y/T	U/Uref	U2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	V2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	4.2509E-02	2.8418E-03	1.3817E+00	1.8357E+00	8.2901E-01	-4.2102E-03	1.1820E-04	-9.9539E-01	1.9853E+00	
1.7705E-03	4.9940E-02	3.2619E-03	1.3003E+00	1.5931E+00	8.5266E-01	-4.5287E-03	1.1626E-04	-5.2201E-01	1.3390E+00	
2.4788E-03	6.8218E-02	4.7675E-03	9.9140E-01	5.5457E-01	8.7403E-01	-4.4490E-03	1.1610E-04	-3.7399E-01	1.2874E+00	-9.3857E-06
3.1876E-03	1.1515E-01	7.5711E-03	4.9958E-01	-1.9634E-01	9.2937E-01	-3.2564E-03	1.5072E-04	-3.3295E-01	1.3057E+00	-9.2866E-05
3.8952E-03	1.5873E-01	1.0243E-02	4.3760E-01	1.1583E-01	9.6205E-01	-3.7412E-03	2.5384E-04	-5.0649E-01	1.7315E+00	-3.0583E-04
4.6034E-03	1.8222E-01	1.0077E-02	1.5718E-01	-3.3914E-01	9.7337E-01	-4.3453E-03	3.9172E-04	-1.8467E-01	1.0851E+00	-4.0427E-04
5.6657E-03	2.1009E-01	1.0418E-02	1.1291E-01	-3.5421E-01	9.8669E-01	-5.2769E-03	5.0676E-04	-2.6235E-01	6.5810E-01	-7.6215E-04
7.0822E-03	2.3015E-01	1.0760E-02	1.8626E-02	-2.1146E-01	9.8980E-01	-5.5115E-03	8.3277E-04	-8.7417E-02	1.0658E+00	-1.4549E-03
8.4986E-03	2.4990E-01	1.0543E-02	-4.4048E-02	-2.2439E-01	9.9467E-01	-3.0248E-03	1.5390E-03	-1.4273E-01	9.8367E-01	-9.7222E-04
1.0623E-02	2.574E-01	1.0500E-02	-1.0408E-01	-2.3202E-01	9.9467E-01	-2.1807E-05	2.1149E-03	-6.2747E-01	1.1614E+00	-9.5163E-04
1.2748E-02	2.8100E-01	1.0649E-02	-4.7543E-02	-2.1098E-01	9.9786E-01	-4.2388E-03	1.8460E-03	-1.9333E-01	3.9955E-01	-1.1729E-03
1.5935E-02	2.9709E-01	1.0123E-02	-7.2441E-02	-3.5204E-01	1.0000E+00	-4.5938E-03	2.0728E-03	-1.3963E-01	5.2380E-01	-1.1918E-03
1.9475E-02	3.1651E-01	1.0476E-02	-1.1612E-01	-2.3916E-01	1.0000E+00	-2.0201E-03	2.2517E-03	-5.8097E-02	3.3856E-01	-1.2777E-03
2.3725E-02	3.3063E-01	1.0968E-02	-1.1812E-01	-2.3121E-01	1.0000E+00	-2.2386E-03	2.2077E-03	-1.4441E-01	2.2534E-01	-1.1876E-03
2.9037E-02	3.5312E-01	1.0868E-02	-1.2375E-01	-2.0242E-01	1.0000E+00	-1.8991E-03	2.3404E-03	-3.1279E-02	3.4096E-01	-7.2022E-04
3.5411E-02	3.7624E-01	1.0635E-02	-1.1181E-01	-2.5499E-01	1.0000E+00	-3.5906E-04	2.3246E-03	-1.5213E-01	2.0591E-01	-1.1770E-03
4.3201E-02	3.9736E-01	1.0260E-02	-1.3250E-01	-2.5573E-01	1.0000E+00	-4.0270E-04	2.4657E-03	-1.6443E-02	3.6876E-01	-1.3913E-03
5.2762E-02	4.2045E-01	1.0194E-02	-1.4530E-01	-2.7958E-01	1.0000E+00	-2.8432E-03	2.2951E-03	-1.0057E-01	1.8139E-02	-1.3526E-03
6.4655E-02	4.4951E-01	1.0021E-02	-1.9048E-01	-2.4638E-01	1.0000E+00	-3.3042E-03	2.4213E-03	-1.4044E-01	3.2970E-01	-6.7671E-04
7.8966E-02	4.7713E-01	9.4260E-03	-1.8598E-01	-2.8890E-01	1.0000E+00	-1.5796E-03	2.3952E-03	-4.2651E-01	5.6833E-02	-8.9238E-04
9.7734E-02	5.1051E-01	8.9016E-03	-2.237E-01	-2.1448E-01	1.0000E+00	-5.3927E-05	2.1354E-03	-2.6483E-02	6.6051E-02	-1.2429E-03
1.1736E-01	5.4028E-01	8.0898E-03	-2.2727E-01	-2.1479E-01	1.0000E+00	-2.7486E-03	2.2807E-03	-1.9236E-02	2.9457E-02	-1.0295E-03
1.4377E-01	5.7734E-01	7.3889E-03	-2.7644E-01	-1.2780E-01	1.0000E+00	-1.7154E-03	2.1336E-03	-4.9150E-02	2.1709E-01	-1.0750E-03
1.7504E-01	6.0975E-01	6.5556E-03	-2.9611E-01	-8.6273E-02	1.0000E+00	-7.8829E-04	2.1162E-03	-2.7209E-02	-5.3387E-03	-8.3647E-04
2.6204E-01	6.9119E-01	5.4912E-03	-4.2245E-01	6.9490E-02	1.0000E+00	-2.4133E-03	1.8860E-03	-5.2782E-02	4.0622E-01	-8.9612E-04
3.1976E-01	7.4695E-01	3.0456E-03	-4.4092E-01	6.4465E-02	1.0000E+00	-4.7489E-03	1.3532E-03	-4.9447E-02	3.0159E-01	-2.7468E-04
3.9200E-01	7.7718E-01	2.3028E-03	-4.2100E-01	1.1714E-01	1.0000E+00	-4.5514E-03	1.1835E-03	-1.3337E-01	5.7907E-01	-1.5865E-04
4.7749E-01	8.1171E-01	1.6431E-03	-1.5100E-01	-1.8610E-01	1.0000E+00	5.0549E-03	8.8020E-04	-1.6533E-01	2.9409E-01	-1.2753E-04
5.8286E-01	8.2319E-01	1.1841E-03	3.4818E-02	-4.2421E-02	1.0000E+00	1.9240E-02	9.0912E-04	2.2080E-01	1.4108E-01	4.4294E-04
7.1211E-01	8.1725E-01	8.0208E-04	-1.1376E-02	-6.8627E-01	1.0000E+00	1.6322E-02	2.8297E-04	4.6537E-01	1.6093E-03	
8.6969E-01	8.1304E-01	9.6470E-04	1.3596E-01	-2.7458E-01	1.0000E+00	1.6837E-02	4.2441E-04	6.1128E-02	3.7188E-02	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-2 U and V component velocity measurements made at X/T = -.67 with the laser anemometer, plane 1.

File E307770.RES

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.103412

viscosity (meters squared per second) = 1.556109E-05

Atmospheric pressure (Pascals) = 93780

Velocity of undisturbed free stream (Uref in m/s) = 27.59038

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09274E-03

Estimated momentum thickness Reynolds number = 6837.772

Location of traverse; X/T = -5 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.414E-03	2.6387E-02	3.0062E-03	9.5452E-01	1.5418E+00	6.0056E-01	-2.0718E-04	9.2877E-05	-6.0736E-01	3.7461E+00	-6.2499E-05
2.1246E-03	3.1218E-02	3.6195E-03	8.6556E-01	9.6077E-01	5.6229E-01	-5.1215E-04	9.7296E-05	-6.0349E-01	3.0874E+00	-4.6433E-04
2.8329E-03	5.0362E-02	5.5447E-03	6.4104E-01	3.1903E-01	7.3774E-01	-3.5326E-04	1.7475E-04	-2.6781E-01	2.3786E+00	-8.6067E-04
3.5411E-03	6.7027E-02	7.2817E-03	4.4460E-01	5.8098E-02	7.7925E-01	-5.3372E-04	2.9345E-04	-4.8770E-01	1.8993E+00	-9.1417E-04
4.6034E-03	2.5684E-02	9.0859E-03	2.5852E-01	-2.7111E-01	8.0895E-01	-1.154E-03	5.2660E-04	-3.6715E-01	1.3500E+00	-5.7135E-04
5.8428E-03	1.0336E-01	1.6100E-02	1.8351E-01	-3.3506E-01	8.4373E-01	-2.0414E-03	7.5241E-04	-2.7426E-01	9.4580E-01	-1.1244E-03
7.4333E-03	1.3949E-01	1.1341E-02	-7.3914E-03	-2.3251E-01	8.5979E-01	2.3991E-04	1.0749E-03	-2.2469E-01	7.4187E-01	-1.5233E-03
9.5609E-03	1.6009E-01	1.2114E-02	-8.1894E-02	-2.7535E-01	8.8676E-01	1.3353E-04	1.3850E-03	-1.4262E-01	6.5103E-01	-1.5202E-03
1.2394E-02	1.7566E-01	1.2635E-02	-1.2125E-01	-2.5112E-01	9.0556E-01	1.3533E-04	1.6671E-03	-1.5098E-01	5.5261E-01	-1.6334E-03
1.5935E-02	1.9788E-01	1.2703E-02	-1.5615E-01	-1.9445E-01	9.2986E-01	-1.5835E-03	2.0058E-03	-1.3959E-01	5.1633E-01	-1.5735E-03
2.0184E-02	2.1369E-01	1.3037E-02	-1.9970E-01	-1.7016E-01	9.4596E-01	1.4071E-04	2.1104E-03	-2.6007E-02	4.1462E-01	-1.8362E-03
2.5850E-02	2.5807E-01	1.3003E-02	-2.5773E-01	-1.0713E-01	9.7232E-01	4.4275E-04	2.2527E-03	1.7280E-02	2.5933E-01	-1.4343E-03
3.4348E-02	2.9004E-01	1.2443E-02	-2.6164E-01	-1.2237E-01	9.8603E-01	1.5943E-03	2.3830E-03	5.4195E-02	2.8311E-01	-1.7247E-03
4.2493E-02	3.1047E-01	1.2665E-02	-2.4452E-01	-9.2933E-02	9.9114E-01	5.7086E-04	2.5980E-03	-3.7259E-02	2.9071E-01	-1.0908E-03
5.4897E-02	3.6000E-01	1.1813E-02	-2.6549E-01	-8.4136E-02	9.9843E-01	5.247E-03	2.3937E-03	5.681E-02	2.6608E-01	-1.4235E-03
6.9051E-02	3.8880E-01	1.1091E-02	-2.7809E-01	-1.3040E-01	1.0000E+00	5.3042E-03	2.3635E-03	6.6024E-02	1.9774E-01	-1.9490E-03
8.8173E-02	4.3462E-01	1.0103E-02	-2.8591E-01	-1.1324E-01	1.0000E+00	5.4343E-03	2.2739E-03	1.4849E-01	2.0616E-01	-1.5327E-03
1.1296E-01	5.2503E-01	8.9407E-03	-3.0230E-01	-1.1857E-01	1.0000E+00	1.1052E-03	2.2027E-03	1.6310E-01	2.3647E-01	-1.4689E-03
1.4412E-01	6.8143E-01	7.6564E-03	-2.9149E-01	-1.3138E-01	1.0000E+00	6.5027E-04	1.9688E-03	9.2101E-02	9.5162E-03	-1.5148E-03
1.8414E-01	5.7506E-01	5.9725E-03	-3.8196E-01	1.4514E-02	1.0000E+00	-6.5027E-04	1.7993E-03	2.2242E-01	1.8396E-01	-7.5907E-04
2.3513E-01	6.2464E-01	4.6688E-03	-4.4863E-01	3.2247E-02	1.0000E+00	-8.9350E-03	1.4764E-03	3.2126E-01	2.3008E-01	-7.6475E-04
3.0028E-01	6.8330E-01	3.0327E-03	-5.7471E-01	2.5270E-01	1.0000E+00	-1.4738E-02	1.0977E-03	3.0581E-01	4.2522E-01	-6.2608E-04
3.8350E-01	7.3608E-01	1.7386E-03	-7.2939E-01	6.5696E-01	1.0000E+00	-2.1331E-02	7.5746E-04	5.2828E-01	7.0112E-01	-3.3464E-04
4.8973E-01	7.7430E-01	3.9847E-04	-1.1090E+00	2.1775E+00	1.0000E+00	-2.4936E-02	3.5170E-04	5.7809E-01	1.3950E+00	-3.0309E-05
6.2748E-01	7.7042E-01	5.8951E-05	7.3028E-02	1.5203E-01	1.0000E+00	-2.3682E-02	6.1352E-05	2.1694E-01	1.4128E-01	2.2413E-05
7.9887E-01	7.6187E-01	3.0045E-05	-2.2337E-01	-1.1685E-01	1.0000E+00	-1.7117E-02	4.9252E-05	1.5908E-01	-2.1518E-01	1.1096E-05
1.0202E+00	7.4672E-01	2.6230E-05	-2.9541E-01	-1.5584E-01	1.0000E+00	-8.0556E-04	3.6671E-05	7.0839E-02	-3.6742E-01	1.3923E-05
1.3028E+00	7.4117E-01	3.2460E-05	-3.3363E-01	-2.0249E-01	1.0000E+00	4.6415E-03	2.8897E-05	1.4996E-01	-2.2431E-01	1.4767E-05
1.6636E+00	7.3370E-01	2.8116E-05	-4.2923E-01	-3.3558E-02	1.0000E+00	2.2193E-02	2.4242E-05	-1.4472E-01	-1.1014E-01	1.3669E-05

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-3 U and V component velocity measurements made at X/T = -.50 with the laser anemometer, plane 1.

File E232770.RE5

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 27.1

density (kilograms per meter cubed) = 1.103308

viscosity (meters squared per second) = 1.675057E-05

Atmospheric pressure (Pascals) = 95070

Velocity of undisturbed free stream (Uref, in m/s) = 27.70854

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.089243E-03

Estimated momentum thickness Reynolds number = 6783.573

Location of traverse; X/T = -.461 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	5.0978E-03	1.6196E-03	7.5354E-01	1.8046E+00	5.0247E-01	-3.8749E-03	1.1474E-04	-7.2366E-01	1.1173E+00	-1.2246E-04
1.7705E-03	1.3080E-02	2.3422E-03	1.0004E+00	1.6632E+00	5.4441E-01	-5.1942E-03	1.3038E-04	-7.2767E-01	1.8362E+00	-6.5554E-04
2.4788E-03	9.0247E-03	2.2227E-03	6.9120E-01	1.5502E+00	5.1960E-01	-6.7813E-03	1.0275E-04	-5.5246E-01	1.4406E+00	-1.1089E-03
3.1870E-03	2.0531E-02	3.9087E-03	7.6110E-01	9.7829E-01	5.7950E-01	-6.9607E-03	2.0255E-04	-8.1157E-01	2.3929E+00	-1.5292E-03
3.8952E-03	2.7217E-02	5.7228E-03	4.7172E-01	5.0713E-01	6.3033E-01	-5.1780E-03	2.1793E-04	-6.0718E-01	2.0862E+00	-1.514E+00
4.6034E-03	4.3196E-02	7.6342E-03	4.9855E-01	3.0536E-01	6.5794E-01	-6.4479E-03	3.4585E-04	-4.2982E-01	1.5448E+00	-9.8098E-04
5.3657E-03	6.5845E-02	1.0116E-02	1.1498E-01	-1.4766E-01	7.2528E-01	-6.7191E-03	6.0978E-04	-3.4821E-01	1.9854E+00	-4.7879E-04
7.0822E-03	9.8149E-02	1.2584E-02	6.0074E-02	-2.9617E-01	7.9833E-01	-1.4028E-03	1.1848E-03	-5.6106E-01	4.8798E-01	-9.5063E-04
8.4986E-03	1.1915E-01	1.3504E-02	-1.5846E-01	-3.2526E-01	8.3924E-01	-5.4943E-04	1.5683E-03	-2.7204E-01	5.9036E-01	-1.8027E-03
1.0623E-02	1.3998E-01	1.5617E-02	-2.2977E-01	-1.4738E-01	8.7205E-01	-2.9647E-04	1.8092E-03	-2.8645E-01	6.7871E-01	-2.0544E-03
1.2748E-02	1.6012E-01	1.3265E-02	-2.8240E-01	-5.6948E-02	9.0422E-01	-1.1721E-04	2.1190E-03	-2.5362E-01	1.9490E-01	-2.2508E-03
1.5933E-02	1.7742E-01	1.3566E-02	-3.0475E-01	-5.7755E-02	9.2463E-01	3.4270E-03	2.3000E-03	1.6936E-02	3.7805E-01	-2.3043E-03
1.9476E-02	1.9328E-01	1.4228E-02	-3.3813E-01	-1.0145E-01	9.3234E-01	3.3054E-03	2.5022E-03	1.0030E-02	3.5984E-01	-1.5683E-03
2.3725E-02	2.1402E-01	1.4934E-02	-3.1907E-01	8.0583E-03	9.4863E-01	5.8128E-03	2.6548E-03	1.0694E-02	4.1833E-01	-1.7027E-03
3.5411E-02	2.7047E-01	1.4068E-02	-2.4217E-01	-7.3750E-02	9.8316E-01	-3.0621E-05	2.8207E-03	-8.4708E-02	2.7135E-01	-1.8712E-03
4.3201E-02	2.9904E-01	1.3671E-02	-2.4970E-01	-1.5719E-01	9.9227E-01	5.3591E-03	3.1291E-03	1.1230E-02	3.2903E-01	-1.6310E-03
5.2763E-02	3.2628E-01	1.3232E-02	-2.9352E-01	-5.9899E-02	9.9507E-01	3.0477E-04	3.2814E-03	-8.9770E-02	4.9771E-01	-1.4226E-03
6.4448E-02	3.6608E-01	1.2872E-02	-2.6996E-01	-7.4161E-02	9.9958E-01	2.7515E-03	3.2485E-03	-1.2830E-02	6.2775E-02	-1.4557E-03
7.8966E-02	3.9721E-01	1.1705E-02	-2.9156E-01	-2.0737E-02	1.0000E+00	4.0572E-03	2.6640E-03	4.5897E-02	1.6392E-01	-1.5630E-03
9.6317E-02	4.3846E-01	1.0415E-02	-2.8900E-01	-5.4730E-02	1.0000E+00	2.9433E-04	2.6402E-03	4.4097E-02	2.1089E-01	-1.2326E-03
1.1756E-01	4.7768E-01	9.3689E-03	-2.9415E-01	-8.9379E-02	1.0000E+00	3.3829E-03	2.3396E-03	7.1700E-02	2.1583E-03	-1.3581E-03
1.4377E-01	5.1538E-01	8.3699E-03	-3.5264E-01	1.0624E-02	1.0000E+00	-1.7843E-04	2.4159E-03	4.6705E-02	2.2364E-01	-1.5379E-03
1.7459E-01	5.5555E-01	7.2001E-03	-3.3268E-01	9.9473E-03	1.0000E+00	-7.4139E-03	2.4159E-03	-3.4835E-02	3.1408E-01	-8.0530E-04
2.2404E-01	6.4147E-01	5.8616E-03	-3.3240E-01	1.1786E-02	1.0000E+00	-6.2014E-03	1.9564E-03	1.0010E-02	1.0620E-01	-1.1446E-03
3.1976E-01	8.8191E-01	3.7235E-03	-3.6130E-01	3.3624E-02	1.0000E+00	-1.2892E-02	1.6632E-03	8.1090E-02	2.2055E-01	-7.7119E-04
4.7769E-01	7.2028E-01	2.5815E-03	-4.2876E-01	7.5715E-02	1.0000E+00	-2.2020E-02	1.2337E-03	-2.7835E-01	8.7887E-01	-4.6701E-04
5.8286E-01	7.5519E-01	1.5026E-03	-8.2311E-02	9.6204E-03	1.0000E+00	-2.1718E-02	8.5307E-04	-3.3766E-01	3.3751E-01	-2.1053E-04
7.1246E-01	7.4173E-01	9.8208E-04	-2.8831E-01	-1.1202E-01	1.0000E+00	-1.7524E-02	7.0068E-04	-1.1943E-01	-2.4539E-02	3.2277E-04
8.6569E-01	7.3304E-01	1.2201E-03	-2.9952E-02	-2.1176E-01	1.0000E+00	-1.7832E-02	5.5223E-04	-2.6282E-01	-4.7785E-01	
		1.3782E-03	-1.1082E-01	-2.3033E-01	1.0000E+00	-4.2383E-03	2.6480E-04	-1.3653E-01	3.1394E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-4 U and V component velocity measurements made at X/T = -.46 with the laser anemometer, plane 1.

File E233770.RES
 U and V component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 26.1
 density (kilograms per meter cubed) = 1.10414
 viscosity (meters squared per second) = 1.869327E-05
 Atmospheric pressure (Pascal) = 94825
 Velocity of undisturbed free stream (Uref, in m/s) = 27.62568
 Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.091693E-03
 Estimated momentum thickness Reynolds number = 6790.570
 Location of traverse: X/T = -.404 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	3.1103E-03	1.6982E-03	6.7889E-01	1.5446E+00	4.6328E-01	-1.0679E-02	4.4479E-04	-1.3291E+00	2.0328E+00	9.4982E-05
2.1246E-03	-1.7214E-03	1.8370E-03	1.6948E-01	1.5271E+00	4.2754E-01	-7.3770E-03	2.4277E-04	-1.0158E+00	2.1770E+00	7.1428E-05
2.6588E-03	3.3877E-03	2.5433E-03	4.8353E-01	1.3924E+00	4.7244E-01	-4.1897E-03	2.2524E-04	-8.7703E-01	2.0279E+00	-5.5325E-04
3.1870E-03	8.0283E-03	3.5662E-03	4.1853E-01	9.4657E-01	5.1091E-01	-7.9499E-03	3.2237E-04	-9.9749E-01	1.9509E+00	8.5433E-05
3.8952E-03	1.5495E-02	5.4769E-03	2.4812E-01	1.2390E-01	5.5847E-01	-4.8502E-03	4.4599E-04	-6.4633E-01	1.5550E+00	-9.0008E-05
4.6034E-03	2.8511E-02	8.1379E-03	3.0326E-01	6.4688E-02	5.9860E-01	-9.8670E-03	6.8271E-04	-5.7759E-01	1.2133E+00	6.8234E-04
5.6657E-03	4.3067E-02	1.1238E-02	8.0944E-02	4.8839E-02	6.3893E-01	-6.5565E-03	8.2230E-04	-3.3779E-01	6.3869E-01	-2.5007E-04
7.0822E-03	7.5868E-02	1.3821E-02	1.4261E-01	-1.9512E-01	7.3456E-01	-6.8558E-03	1.3008E-03	-8.6218E-02	6.4640E-01	-1.3240E-04
8.4986E-03	8.7862E-02	1.4177E-02	1.1959E-02	-1.9271E-01	7.6936E-01	-1.1663E-03	1.9618E-03	-3.5481E-01	6.7816E-01	-4.7855E-04
1.0623E-02	1.1243E-01	1.5966E-02	1.1931E-01	-2.6234E-01	8.0948E-01	-7.9025E-03	2.6752E-03	-5.1054E-01	5.4032E-01	-6.7422E-04
1.5935E-02	1.5594E-01	1.6711E-02	1.9209E-01	-1.6924E-01	8.7693E-01	-7.2429E-03	2.7940E-03	-3.4081E-02	2.4578E-01	-2.0655E-03
1.9474E-02	1.8020E-01	1.6488E-02	2.8632E-01	-1.2305E-01	9.0873E-01	-3.8059E-04	3.5556E-03	-7.0966E-03	4.3577E-01	-1.2943E-03
2.3725E-02	1.9865E-01	1.6945E-02	2.7901E-01	-1.3541E-01	9.2408E-01	-5.5035E-03	3.2305E-03	-1.3426E-02	3.1830E-01	-1.1581E-03
3.5411E-02	2.4454E-01	1.4887E-02	2.4213E-01	-5.9147E-02	9.7704E-01	-1.1732E-02	3.9696E-03	-2.2654E-02	1.8828E-01	-2.9912E-03
4.3378E-02	2.9722E-01	1.5199E-02	2.0339E-01	-1.9874E-02	9.8823E-01	-1.3956E-02	4.3704E-03	-2.6019E-01	6.0966E-01	-8.9153E-04
5.2762E-02	3.3187E-01	1.6515E-02	2.3526E-01	-1.4177E-01	9.9720E-01	-2.9769E-03	3.3090E-03	-1.3032E-03	2.8362E-01	-2.0099E-03
6.4448E-02	3.7035E-01	1.3134E-02	2.8592E-01	-2.3628E-01	9.9928E-01	-5.0685E-03	2.8911E-03	-1.3032E-03	2.8362E-01	-2.0099E-03
7.8766E-02	4.0349E-01	1.1756E-02	3.4828E-01	-8.1189E-02	1.0000E+00	-7.5727E-03	2.6907E-03	8.9059E-02	1.8390E-01	-1.8005E-03
9.6317E-02	4.4099E-01	1.1344E-02	3.3562E-01	-2.4952E-02	1.0000E+00	-2.2231E-03	2.4475E-03	8.3149E-02	2.3323E-01	-1.1271E-03
1.1756E-01	4.8325E-01	9.9770E-03	3.4282E-01	-7.1485E-01	1.0000E+00	-1.8188E-03	2.2411E-03	9.0559E-02	1.0780E-01	-1.4985E-03
1.4377E-01	5.2193E-01	8.7370E-03	3.1929E-01	-1.0173E-01	1.0000E+00	-1.8188E-03	2.2411E-03	9.0559E-02	1.0780E-01	-1.4985E-03
1.7544E-01	5.5531E-01	7.6444E-03	3.6297E-01	-6.6572E-02	1.0000E+00	-1.8853E-02	2.1864E-03	8.3641E-02	1.8366E-01	-8.9810E-04
2.1459E-01	5.9171E-01	6.6738E-03	3.5390E-01	1.8213E-02	1.0000E+00	-9.3300E-03	2.1864E-03	8.3641E-02	1.8366E-01	-8.9810E-04
2.6204E-01	6.2597E-01	5.2165E-03	4.3328E-01	3.1967E-02	1.0000E+00	-2.3903E-02	2.0120E-03	-9.2458E-02	6.7032E-01	-5.4729E-04
3.1976E-01	6.5380E-01	4.3975E-03	4.7100E-01	1.3983E-01	1.0000E+00	-3.5274E-02	1.9171E-03	-3.5348E-01	7.5074E-01	-1.2705E-04
3.7093E-01	6.8008E-01	3.1712E-03	4.8100E-01	3.0607E-01	1.0000E+00	-3.0865E-02	1.1527E-03	-3.4388E-03	4.4979E-01	-1.5964E-04
4.2734E-01	6.9723E-01	2.2283E-03	4.8636E-01	2.8117E-01	1.0000E+00	-3.5718E-02	1.1179E-03	-5.8686E-01	1.4023E+00	5.9432E-05
5.8286E-01	7.0271E-01	1.6402E-03	3.6014E-01	3.0441E-01	1.0000E+00	-2.7293E-02	6.8947E-04	-4.0436E-02	6.0730E-01	2.4443E-04
7.1211E-01	7.0187E-01	1.3438E-03	2.1553E-01	9.5473E-02	1.0000E+00	-2.7674E-02	1.0360E-03	-1.0474E+00	1.9873E+00	4.1146E-04
8.6949E-01	6.9809E-01	1.3623E-03	2.0827E-01	2.5304E-01	1.0000E+00	-1.7447E-02	7.7517E-04	-6.9219E-01	5.7238E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-5 U and V component velocity measurements made at X/T = -.40 with the laser anemometer, plane 1.

File E234770.RES

U and V component velocity measurements obtained with the laser anemometer

FLA temperature (degrees centigrade) = 26

density (kilograms per meter cubed) = 1.098514

viscosity (meters squared per second) = 1.678899E-05

Atmospheric pressure (Pascals) = 94310

Velocity of undisturbed free stream (Uref, in m/s) = 27.62803

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091624E-03

Estimated momentum thickness Reynolds number = 6752.313

Location of traverse; X/T = -.3513 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	-8.0183E-03	2.4423E-03	-6.3074E-02	2.0934E+00	3.6780E-01	-1.0790E-02	4.8182E-04	-1.1047E+00	1.5324E+00	-2.9027E-05
1.7705E-03	-9.6917E-03	2.7757E-03	-6.4424E-03	1.7533E+00	3.7880E-01	-7.1202E-03	2.9994E-04	-1.0980E+00	2.2742E+00	1.3218E-04
2.4788E-03	-7.6744E-03	2.9844E-03	6.0533E-02	1.2301E+00	3.9504E-01	-6.8066E-03	2.5569E-04	-6.6922E-01	1.8049E+00	-3.6601E-04
3.1870E-03	-1.2449E-02	3.6837E-03	-1.2731E-01	9.3098E-01	3.8934E-01	-7.4593E-03	4.1583E-04	-5.0020E-01	1.5736E+00	-1.3657E-03
3.8952E-03	-6.8860E-03	6.2025E-03	7.4090E-03	9.4245E-01	4.4227E-01	-6.7459E-03	4.2516E-04	-4.2834E-01	1.5998E+00	-3.6628E-04
4.6034E-03	9.6961E-04	1.1019E-02	3.7448E-02	3.3098E-01	4.9682E-01	-5.0307E-03	9.7207E-04	-3.6282E-01	1.7155E+00	3.0403E-04
5.6557E-03	1.2565E-02	1.3415E-02	5.1997E-02	2.4907E-01	5.3342E-01	-1.9586E-03	1.6079E-03	-3.9748E-01	8.093E-01	-1.0274E-03
7.0822E-03	2.1484E-02	1.5297E-02	-9.0251E-02	3.8613E-02	5.6460E-01	8.1638E-04	1.9618E-03	-4.8612E-01	1.0300E+00	-1.0274E-03
8.4984E-03	4.0783E-02	1.6363E-02	-1.2139E-01	-5.3832E-02	6.3319E-01	2.6392E-03	2.2464E-03	-1.9108E-01	5.4457E-01	-9.5204E-04
1.0623E-02	5.9713E-02	1.8805E-02	-1.8944E-01	-9.2869E-03	6.6735E-01	3.5169E-03	2.9122E-03	-1.5979E-01	3.4457E-01	4.6057E-04
1.2745E-02	8.3909E-02	1.7842E-02	-1.1691E-01	-2.4685E-01	7.3289E-01	1.0301E-02	4.5858E-03	-3.8672E-01	1.0906E+00	-5.3619E-04
1.5935E-02	6.8236E-02	1.7852E-02	-3.8544E-02	1.9429E-01	6.9519E-01	5.7794E-03	5.5175E-03	-1.3346E-01	5.7359E-01	-2.3687E-03
1.9476E-02	4.6392E-02	2.2026E-02	-6.3809E-01	1.4323E+00	6.4492E-01	7.4246E-03	6.2966E-03	-1.2580E-01	6.1892E-01	-2.7047E-03
2.3725E-02	6.2877E-02	2.4091E-02	-7.4013E-01	1.3511E+00	6.9545E-01	4.3009E-03	7.5763E-03	1.1336E-01	1.172E+00	-6.5419E-03
2.9037E-02	9.0861E-02	2.4431E-02	-8.2681E-01	1.6388E+00	7.6642E-01	5.6674E-03	7.1429E-03	1.3678E-01	1.1224E+00	-5.1840E-03
3.5411E-02	1.3913E-01	2.7453E-02	-7.1370E-01	1.3228E+00	8.4680E-01	1.3003E-02	7.6414E-03	1.8552E-01	1.4940E+00	-3.6298E-03
4.3201E-02	1.7742E-01	2.1363E-02	-6.6621E-01	9.3074E-01	8.9012E-01	1.2982E-02	6.4150E-03	2.9866E-01	1.3322E+00	-3.9085E-03
5.2762E-02	2.1374E-01	1.9764E-02	-5.3255E-01	5.4389E-01	9.2607E-01	1.9062E-02	7.6240E-03	8.2732E-01	2.9353E+00	-6.2712E-03
6.4448E-02	2.7081E-01	1.5988E-02	-4.9343E-01	4.1892E-01	9.7278E-01	1.7393E-02	5.7587E-03	2.2906E-01	1.6878E+00	-7.3992E-04
7.9143E-02	3.1431E-01	1.4089E-02	-4.4649E-01	3.5164E-01	9.8804E-01	2.4736E-02	5.4346E-03	3.8907E-01	1.3570E+00	-1.8275E-03
9.6317E-02	3.6387E-01	1.1706E-02	-3.6062E-01	4.1733E-02	9.9930E-01	1.7882E-02	4.1957E-03	1.0121E-01	5.8914E-01	-1.3289E-03
1.1793E-01	4.1179E-01	9.9928E-03	-2.8940E-01	1.1873E-04	1.0000E+00	1.0459E-02	4.0331E-03	-1.5562E-01	4.4223E-01	-1.2114E-03
1.4448E-01	4.7931E-01	8.3335E-03	-3.7388E-01	7.1955E-02	1.0000E+00	-2.749E-03	2.5688E-03	1.4033E-01	1.9349E-01	-1.1393E-03
1.7564E-01	5.2173E-01	7.0493E-03	-2.9228E-01	-1.4163E-01	1.0000E+00	-1.6159E-02	2.2759E-03	5.1828E-02	-4.4718E-03	-1.1206E-03
2.1459E-01	5.6442E-01	5.7069E-03	-3.5749E-01	-3.5713E-02	1.0000E+00	-2.6277E-02	1.9956E-03	1.1012E-01	1.4658E-01	-1.1053E-03
2.5310E-01	6.0669E-01	4.6298E-03	-4.0156E-01	-8.7309E-03	1.0000E+00	-3.4817E-02	1.6986E-03	1.1002E-01	3.0880E-01	-7.5635E-04
3.1776E-01	6.4415E-01	3.6942E-03	-4.8398E-01	2.3431E-01	1.0000E+00	-3.7577E-02	1.2991E-03	1.8098E-01	3.3604E-01	-7.5360E-04
3.9093E-01	6.7501E-01	2.4577E-03	-5.3722E-01	3.3279E-01	1.0000E+00	-4.4820E-02	1.1340E-03	3.5499E-02	6.4694E-01	-8.2052E-05
4.7734E-01	6.9118E-01	1.5941E-03	-4.7338E-01	5.0726E-01	1.0000E+00	-3.6519E-02	9.4794E-04	-1.0160E-01	6.9864E-01	1.2445E-05
5.8286E-01	6.9359E-01	1.2054E-03	-1.5615E-02	-2.3776E-01	1.0000E+00	-1.9651E-02	1.0145E-03	1.3660E-01	-6.8044E-02	
7.1211E-01	6.7069E-01	9.3356E-04	-7.9035E-02	-6.6102E-01	1.0000E+00	-1.3325E-02	1.4989E-04	-1.4349E-02	-7.3290E-01	
8.6669E-01	6.6056E-01	7.0916E-04	-1.8441E-01	-8.1372E-01	1.0000E+00					

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-6 U and V component velocity measurements made at X/T = -.35 with the laser anemometer, plane 1.

File E235770.RES

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 26

density (kilograms per meter cubed) = 1.099388

viscosity (pascals squared per second) = 1.678899E-05

Atmospheric pressure (Pascals) = 94385

Velocity of undisturbed free stream (Uref, in m/s) = 27.64833

Estimated momentum thickness at X/T = -2.146, Z/T = 0 (m) = 4.091023E-03

Estimated momentum thickness Reynolds number = 6756.285

Location of traverse; X/T = -.3 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0633E-03	-2.9789E-03	2.7463E-03	8.3609E-02	1.2245E+00	4.6599E-01	-7.2092E-03	2.4255E-04	-1.1422E+00	2.3889E+00	6.7751E-04
1.4144E-03	-3.2047E-03	3.2935E-03	1.1735E-01	1.0297E+00	4.7603E-01	-5.9844E-03	2.0567E-04	-7.5361E-01	1.6438E+00	3.3480E-04
2.4788E-03	-7.8335E-03	8.3195E-03	9.0591E-02	1.1057E+00	4.4637E-01	-2.7237E-03	2.4703E-04	-6.3009E-01	2.0320E+00	
3.1870E-03	-1.1461E-02	1.0495E-02	-3.6007E-02	1.1394E+00	4.3870E-01	-4.2004E-03	3.8860E-04	-5.7068E-01	2.1511E+00	
3.8932E-03	-4.3553E-02	2.3205E-02	-6.0110E-01	1.2455E+00	3.9604E-01	-5.7695E-03	2.3894E-03	-5.8181E-01	1.0839E+00	
4.6034E-03	-7.1067E-02	2.7814E-02	-7.6253E-01	2.3403E+00	3.1746E-01	-1.4426E-02	4.0425E-03	-6.601E-01	1.1810E+00	
5.6575E-03	-6.8638E-02	2.6547E-02	-8.0430E-01	2.0948E+00	3.2572E-01	-1.4488E-04	4.1721E-03	-4.6845E-01	1.0212E+00	
7.3300E-03	-7.0779E-02	2.9562E-02	-1.0071E+00	2.2077E+00	3.4412E-01	-1.4448E-04	5.9051E-03	-3.7849E-01	8.0353E-01	
8.8527E-03	-6.7235E-02	2.7729E-02	-8.9521E-01	1.7941E+00	3.5534E-01	-2.3200E-03	6.6879E-03	-2.1758E-01	6.3419E-01	
1.0623E-02	-6.721E-02	3.2471E-02	-1.0143E+00	1.9631E+00	3.6394E-01	-2.6888E-03	8.0704E-03	-1.2499E-01	5.9558E-01	
1.2748E-02	-6.3950E-02	3.3800E-02	-1.1150E+00	1.7628E+00	3.9856E-01	-1.2074E-03	9.5511E-03	-4.9450E-02	5.2387E-01	
1.5935E-02	-5.3639E-02	3.6608E-02	-1.0721E+00	1.4728E+00	4.3632E-01	-2.7862E-03	1.1583E-02	-7.1292E-02	4.7175E-01	
1.9476E-02	-4.7315E-02	4.0007E-02	-9.8884E-01	9.1600E-01	4.7009E-01	-5.0419E-03	1.3807E-02	-4.4328E-01	4.5638E-01	
2.3725E-02	-4.2003E-02	4.5093E-02	-8.3552E-01	2.1303E-01	5.0750E-01	-1.434E-02	1.7953E-02	-5.7450E-01	9.1803E-01	
2.9037E-02	-1.0893E-02	4.3943E-02	-8.0156E-01	1.6496E-01	5.090E-01	-2.264E-02	1.9352E-02	-6.9685E-01	8.3795E-01	
3.5411E-02	4.461E-02	3.9992E-02	-8.5242E-01	4.7877E-01	6.7192E-01	-2.357E-02	1.6740E-02	-6.9685E-01	8.3795E-01	
4.3201E-02	9.6259E-02	3.4099E-02	-8.7619E-01	6.8500E-01	7.5779E-01	-4.5086E-02	1.9547E-02	-9.5975E-01	1.3660E+00	
5.2762E-02	1.4776E-01	2.9322E-02	-7.3290E-01	5.3451E-01	8.2250E-01	-4.5086E-02	1.7549E-02	-9.5975E-01	1.3660E+00	
6.4448E-02	2.2419E-01	2.0754E-02	-7.4772E-01	9.4668E-01	9.2730E-01	-3.1751E-02	1.2184E-02	-1.2222E+00	2.6521E+00	
7.8966E-02	2.9365E-01	1.6147E-02	-5.1754E-01	6.9599E-01	9.7466E-01	-3.4963E-02	1.1164E-02	-1.1900E+00	3.0148E+00	
9.6671E-02	3.4509E-01	1.1820E-02	-2.6393E-01	8.5343E-02	1.0000E+00	-5.7485E-03	6.0859E-03	-5.6690E-01	1.7173E+00	
1.1756E-01	4.310E-01	1.0261E-02	-2.4447E-01	-4.9338E-02	1.0000E+00	-5.7709E-03	3.6364E-03	-3.3578E-02	1.4404E-01	
1.4377E-01	5.0825E-01	7.1005E-03	-3.0270E-01	-3.7513E-02	1.0000E+00	-2.6049E-02	2.2479E-03	-1.4216E-01	5.3033E-01	
1.7564E-01	5.865E-01	8.7708E-03	-4.0447E-01	8.7001E-03	1.0000E+00	-3.9699E-02	1.9903E-03	-1.5413E-01	1.7986E-01	
2.6435E-01	5.861E-01	4.8131E-03	-4.6234E-01	4.5823E-02	1.0000E+00	-5.1637E-02	1.6249E-03	-1.2236E-01	2.7743E-01	
3.2011E-01	6.1680E-01	3.5657E-03	-4.6234E-01	2.1199E-01	1.0000E+00	-5.1637E-02	1.3700E-03	-2.1081E-01	6.0009E-01	
3.9092E-01	6.438E-01	2.4530E-03	-5.3709E-01	3.9777E-01	1.0000E+00	-5.2945E-02	1.0286E-03	-1.2100E-01	5.2877E-01	
4.7734E-01	6.5770E-01	1.7082E-03	-2.5725E-01	3.2871E-01	1.0000E+00	-5.2174E-02	1.0595E-03	-3.6675E-01	1.2140E+00	
5.8286E-01	6.5957E-01	1.4855E-03	-1.4701E-01	2.6232E-01	1.0000E+00	-3.6505E-02	6.2253E-04	-7.8458E-02	3.0316E-01	
7.1211E-01	6.3769E-01	6.2066E-04	2.2863E-01	-8.3793E-01	1.0000E+00	-1.4341E-02	2.4053E-04	-2.3738E-01	-6.1368E-01	
8.7075E-01	6.1836E-01	6.7738E-04	-8.7477E-02	-7.4237E-01	1.0000E+00	-7.1377E-03	2.6361E-04	-1.5098E-02	2.4448E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-7 U and V component velocity measurements made at X/T = -.30 with the laser anemometer, plane 1.

File E225770.RES
 U and V component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 24.8
 density (kilograms per meter cubed) = 1.12648
 viscosity (meters squared per second) = 1.654237E-05
 Atmospheric pressure (Pascals) = 95140
 Velocity of undisturbed free stream (Uref, in m/s) = 27.59286
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09266E-03
 Estimated momentum thickness Reynolds number = 6846.001
 Location of traverse: X/T = -.251 Z/T = 0

Y/T	W/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	w/Uref2
1.7705E-03	-5.8183E-03	3.5730E-02	-7.9730E-01	1.7465E+00	5.3256E-01	-1.6010E-02	1.7092E-03	-1.1377E+00	1.8049E+00	-5.4748E-03
2.4788E-03	-5.3905E-02	4.7188E-02	-8.3353E-01	8.5929E-01	4.5348E-01	-1.4777E-02	1.7498E-03	-8.2667E-01	1.2991E+00	-5.3503E-03
3.1870E-03	-8.2620E-02	5.8727E-02	-7.6843E-01	6.7542E-01	4.1123E-01	-2.2333E-02	4.1742E-03	-4.9583E-01	7.6419E-01	-1.2033E-02
4.1431E-03	-1.3707E-01	6.7007E-02	-6.9310E-01	8.4217E-03	3.4150E-01	-9.5134E-02	4.0327E-03	-3.9482E-01	6.8396E-01	-5.7288E-03
4.9573E-03	-1.3702E-01	7.3966E-02	-8.3149E-02	8.3149E-02	3.5691E-01	-1.2033E-02	4.4930E-03	-1.8415E-01	2.5010E-01	-3.2489E-03
6.0198E-03	-1.3771E-01	8.1141E-02	-3.9910E-01	1.2555E-01	3.4458E-01	-1.7848E-03	6.8532E-03	-2.2620E-01	4.6695E-01	-3.3200E-03
7.0822E-03	-1.4452E-01	7.5637E-02	-5.1356E-01	3.5796E-01	3.4405E-01	-8.4726E-04	8.7478E-03	-1.0872E-01	5.8698E-01	-7.2233E-03
8.4986E-03	-1.5151E-01	7.0439E-02	-5.7792E-01	3.2569E-01	3.1947E-01	3.9724E-03	1.1274E-02	-1.5780E-01	3.3092E-01	-1.5041E-02
1.0977E-02	-1.5734E-01	7.1138E-02	-4.2940E-01	5.3093E-01	3.2398E-01	7.5557E-03	1.5147E-02	1.1740E-01	9.3050E-02	-1.2481E-02
1.3102E-02	-1.5708E-01	6.6875E-02	-4.3986E-01	6.2805E-01	3.2590E-01	9.3408E-03	1.7351E-02	7.7383E-02	6.8145E-03	-1.4095E-02
1.9436E-02	-1.6074E-01	6.4248E-02	-3.2656E-01	7.9101E-01	3.1787E-01	1.4703E-02	1.9905E-02	1.6672E-01	2.1284E-01	-1.9570E-02
1.9746E-02	-1.3766E-01	6.2445E-02	-2.3058E-01	9.7070E-01	3.0795E-02	2.7394E-02	2.4132E-02	2.3214E-01	3.0993E-01	-2.0294E-02
2.3725E-02	-1.6311E-01	5.9012E-02	-1.5707E-01	9.3982E-01	3.1996E-01	3.7108E-02	2.7696E-02	2.2507E-01	4.3413E-01	-2.1466E-02
2.9037E-02	-1.2977E-01	5.3928E-02	-1.4689E-01	8.6317E-01	3.5018E-01	4.9294E-02	3.2287E-02	3.3874E-01	3.4808E-01	-2.2812E-02
3.5411E-02	-1.4175E-02	4.9998E-02	-3.5441E-01	6.0669E-01	4.8804E-01	5.1951E-02	3.2901E-02	4.7674E-01	2.5084E-01	-2.5233E-02
4.3201E-02	2.0392E-02	4.3540E-02	-4.6525E-01	3.4999E-01	5.8308E-01	5.7635E-02	3.5722E-02	4.6127E-01	2.2317E-01	-2.2810E-02
5.2762E-02	1.1408E-01	3.3694E-02	-4.2147E-01	7.3147E-02	7.4792E-01	5.9867E-02	3.7939E-02	4.0485E-01	4.2655E-02	-1.9717E-02
6.4448E-02	2.1873E-01	2.2807E-02	-3.7549E-01	3.4917E-01	9.1506E-01	4.6552E-02	2.4877E-02	7.0459E-01	6.4587E-01	-1.4459E-02
7.8966E-02	3.0196E-01	1.6883E-02	-1.6344E-01	2.6247E-01	9.8223E-01	2.0685E-02	1.6292E-02	8.0086E-01	1.3454E+00	-4.9043E-03
9.6317E-02	3.5001E-01	1.2394E-02	-1.0548E-01	2.1515E-02	9.9922E-01	2.7759E-03	8.0526E-03	4.7766E-01	1.4941E+00	-4.4584E-03
1.1753E-01	4.0277E-01	1.0021E-02	-1.1224E-01	7.1314E-02	1.0000E+00	-1.0030E-03	4.6300E-03	4.2585E-01	1.0878E+00	-1.7488E-03
1.4377E-01	4.3704E-01	8.6794E-03	-2.2402E-01	2.8461E-02	1.0000E+00	-2.6025E-02	2.8363E-03	1.7672E-01	7.6672E-02	-1.0990E-03
1.7564E-01	4.6520E-01	7.1738E-03	-2.6840E-01	5.8687E-02	1.0000E+00	-4.3259E-02	2.5026E-03	1.7882E-01	2.5323E-01	-9.2878E-04
2.1459E-01	4.9734E-01	5.8693E-03	-2.3976E-01	1.2585E-02	1.0000E+00	-5.8207E-02	2.1757E-03	2.1218E-01	3.2026E-01	-8.0567E-04
2.6344E-01	5.5557E-01	4.8053E-03	-3.2374E-01	4.3059E-02	1.0000E+00	-8.9676E-02	1.5310E-03	3.7541E-01	5.9957E-01	-6.1038E-04
3.2011E-01	5.7903E-01	3.4634E-03	-4.4133E-01	2.4448E-01	1.0000E+00	-7.9028E-02	1.1310E-03	2.8907E-01	5.2075E-01	-6.4888E-04
3.9093E-01	6.0588E-01	2.4655E-03	-5.5096E-01	5.3349E-01	1.0000E+00	-7.1171E-02	8.0115E-04	3.3994E-01	2.9957E-01	-2.7298E-04
4.7698E-01	6.1728E-01	1.4830E-03	-3.7142E-01	3.5886E-01	1.0000E+00	-6.9905E-02	6.4443E-04	3.2232E-01	4.6071E-01	-3.1794E-04
5.8286E-01	6.1781E-01	1.5246E-03	3.9483E-02	1.4610E-01	1.0000E+00	-3.4784E-02	2.6239E-04	-1.1101E-01	9.0263E-02	-9.8502E-05
7.1211E-01	5.9698E-01	9.5577E-04	1.1021E-01	3.5314E-01	1.0000E+00	-4.6200E-02	1.0419E-04	1.5536E-02	4.5292E-01	
8.6969E-01	5.8693E-01	1.4999E-03	8.2079E-02	3.0253E-01	1.0000E+00	-3.0242E-02	6.4915E-05	-7.5066E-02	5.9015E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-8 U and V component velocity measurements made at X/T = -.25 with the laser anemometer, plane 1.

File E226770.RES

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 24.8

density (kilograms per meter cubed) = 1.112648

viscosity (meters squared per second) = 1.654237E-05

Atmospheric pressure (Pascals) = 95140

Velocity of undisturbed free stream (Uref, in m/s) = 27.50626

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09524E-03

Estimated momentum thickness Reynolds number = 6828.807

Location of traverse; X/T = -2036 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.5935E-03	-1.1055E-01	3.0420E-02	-8.0067E-01	2.7391E-01	2.8736E-01	-5.8026E-03	1.8148E-04	-5.6909E-01	1.8745E+00	1.1850E-04
2.4788E-03	-1.3568E-01	4.1768E-02	-6.8297E-01	-6.8726E-02	2.8715E-01	-4.2717E-03	1.9473E-04	-2.4278E-01	1.7650E+00	-1.5820E-03
3.1970E-03	-1.8249E-01	5.3644E-02	-5.8821E-01	-4.0350E-01	2.1589E-01	-2.4791E-03	3.2872E-04	-5.7479E-01	2.6492E+00	-9.5078E-04
3.8952E-03	-2.1472E-01	6.7220E-02	-3.4307E-01	-7.8379E-01	2.2298E-01	2.1927E-03	4.6273E-04	5.0740E-01	2.1261E+00	1.7977E-03
4.6034E-03	-2.9059E-01	8.7047E-02	-6.2970E-03	-1.1681E+00	2.0980E-01	1.8289E-03	1.3443E-03	-4.4564E-01	1.8384E+00	1.7775E-03
5.6657E-03	-3.2796E-01	9.8312E-02	-2.2694E-01	-1.1356E+00	2.0665E-01	2.0760E-03	2.2203E-03	3.6023E-01	1.2808E+00	1.7775E-03
7.0822E-03	-3.6758E-01	9.8194E-02	4.2333E-01	-9.7875E-01	1.8646E-01	4.1050E-03	4.4565E-03	3.2428E-02	4.3033E-01	4.6365E-04
8.4986E-03	-3.7277E-01	9.2539E-02	5.2447E-01	-8.2366E-01	1.7555E-01	6.0388E-03	6.1565E-03	7.7999E-02	3.0506E-01	2.2022E-03
1.0623E-02	-3.6886E-01	8.3868E-02	5.6171E-01	-6.9045E-01	1.5783E-01	1.6857E-02	1.0391E-02	7.7999E-02	2.5174E-01	-7.4905E-04
1.3633E-02	-3.6449E-01	6.0792E-02	6.5027E-01	-4.2861E-01	1.3923E-01	1.8575E-02	1.6113E-02	7.4017E-02	-5.2214E-02	-2.8789E-03
1.5935E-02	-3.6212E-01	5.0792E-02	6.9898E-01	-2.1458E-01	1.2363E-01	2.0760E-02	1.8182E-02	1.3326E-01	-1.5501E-01	-4.8402E-03
1.9476E-02	-3.4246E-01	5.2440E-02	6.6323E-01	-4.0241E-02	1.0925E-01	2.3990E-02	2.4285E-02	2.4670E-01	-2.7212E-01	-6.9602E-03
2.3725E-02	-3.2042E-01	4.6595E-02	6.1356E-01	1.3635E-01	1.0457E-01	2.3546E-02	3.3738E-02	2.7197E-01	-3.2845E-01	-6.3488E-03
2.9214E-02	-2.8059E-01	4.2566E-02	4.4486E-01	9.7859E-02	1.1046E-01	1.8212E-02	4.3781E-02	3.4624E-01	-3.4502E-01	-9.3373E-03
3.5765E-02	-2.1904E-01	4.3756E-02	2.6077E-01	3.1953E-01	1.7522E-01	2.8214E-02	5.7217E-02	2.8378E-01	-4.9660E-01	-1.0285E-02
4.3201E-02	-8.9021E-02	4.7550E-02	7.2839E-02	-2.4768E-01	3.4470E-01	4.2478E-02	6.5934E-02	3.1333E-01	-4.3726E-01	-1.4913E-02
5.2762E-02	-2.1164E-01	4.1109E-02	-4.0631E-02	-2.3440E-02	6.1057E-01	-8.0341E-03	7.2957E-02	5.0166E-01	-2.4933E-01	-6.4694E-03
6.4448E-02	-2.1164E-01	3.1551E-02	-7.0910E-02	1.2339E-01	8.8467E-01	5.2377E-03	5.3883E-02	5.0821E-01	1.4833E-01	-4.9192E-03
7.8966E-02	3.1808E-01	2.2996E-02	-1.9693E-02	2.5047E-01	9.7780E-01	-3.8750E-02	3.1290E-02	7.0441E-01	1.9701E+00	-1.4365E-03
9.6317E-02	3.6529E-01	1.5912E-02	-2.8208E-02	3.8234E-01	9.9575E-01	3.0558E-02	1.6445E-02	7.0441E-01	1.512E+00	-8.1618E-04
1.1756E-01	3.9648E-01	1.1559E-02	-7.3533E-02	1.8433E-01	1.0000E+00	-4.3570E-02	7.6267E-03	3.0567E-01	1.9237E-01	-1.1732E-03
1.341E-01	4.2049E-01	8.8046E-03	-1.3302E-01	-3.0739E-02	1.0000E+00	-7.2543E-02	4.0454E-03	6.9444E-02	1.9839E-01	5.1707E-04
1.7564E-01	4.4787E-01	7.4979E-03	-1.3609E-01	1.1090E-01	1.0000E+00	-8.1643E-02	2.9422E-03	5.8058E-02	1.9839E-01	5.1707E-04
2.1477E-01	4.6570E-01	5.9654E-03	-2.8949E-01	8.2331E-03	1.0000E+00	-9.5744E-02	2.3734E-03	1.2434E-01	3.9427E-01	-7.2035E-04
2.6755E-01	5.1279E-01	4.8019E-03	-3.2445E-01	1.0765E-01	1.0000E+00	-1.0640E-01	1.5614E-03	3.2292E-01	4.9328E-01	-6.8792E-04
3.1976E-01	5.3718E-01	3.6209E-03	-4.5239E-01	2.2411E-01	1.0000E+00	-1.0354E-01	1.2025E-03	2.8322E-01	6.3187E-01	-4.1849E-04
3.9093E-01	5.5883E-01	2.5208E-03	-4.2511E-01	4.4830E-01	1.0000E+00	-9.4649E-02	9.2598E-04	2.4563E-01	6.1600E-01	-2.2462E-04
4.7734E-01	5.6969E-01	2.2162E-03	1.1923E-01	9.077E-01	1.0000E+00	-8.3982E-02	7.6647E-04	9.7621E-03	9.6067E-01	1.7644E-04
5.8286E-01	5.5717E-01	1.2618E-03	-1.0154E-01	-7.7266E-02	1.0000E+00	-6.3201E-02	2.3494E-04	4.0385E-02	-1.9005E-01	4.4137E-05
7.1211E-01	5.4019E-01	1.4337E-03	2.7534E-02	4.196E-01	1.0000E+00	-4.6983E-02	1.5216E-04	-1.1197E-01	-1.6707E-01	
8.6969E-01	5.2710E-01	1.1875E-03	8.0750E-02	-5.4502E-01	1.0000E+00					

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-9 U and V component velocity measurements made at X/T = -20 with the laser anemometer, plane 1.

File E22770.RES
 U and V component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 24.8
 density (kilograms per meter cubed) = 1.112648
 viscosity (meters squared per second) = 1.654237E-05
 Atmospheric pressure (Pascals) = 95140
 Velocity of undisturbed free stream (Uref, in m/s) = 27.59707
 Est. a/c momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092542E-03
 Estimated momentum thickness Reynolds number = 6846.836
 Location of traverse; X/T = -.1537 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	-2.6162E-01	4.2538E-02	-2.6782E-01	-6.9846E-01	6.9962E-02	-3.1940E-03	1.8322E-04	-4.3261E-01	1.6742E+00	1.0211E-03
1.7705E-03	-3.6050E-01	5.0527E-02	2.7984E-01	-5.2979E-01	6.4010E-02	-2.9495E-03	2.5873E-04	1.8901E-01	1.8786E+00	1.1204E-03
2.7620E-03	-4.3470E-01	4.9337E-02	6.9487E-01	1.2398E-01	5.6077E-02	-5.2055E-03	6.3243E-04	-1.9277E-02	1.5004E+00	1.2235E-03
3.3640E-03	-4.6646E-01	4.8074E-02	9.3590E-01	7.3336E-01	5.2467E-02	-3.3825E-03	1.1621E-03	-2.4875E-01	1.5785E+00	4.9190E-04
4.0722E-03	-4.8138E-01	4.6879E-02	1.0166E+00	1.1672E+00	5.0494E-02	-5.3033E-03	1.8313E-03	-2.3573E-02	1.3120E+00	-6.7998E-04
4.7096E-03	-4.8660E-01	4.3381E-02	1.0259E+00	1.3815E+00	4.3832E-02	-7.8518E-03	2.3035E-03	1.9360E-01	1.2941E+00	1.7277E-03
5.6657E-03	-4.7848E-01	4.3167E-02	1.0610E+00	1.5944E+00	4.2457E-02	-9.4384E-03	2.9746E-03	3.0717E-01	9.8814E-01	-5.7703E-04
7.0822E-03	-4.8055E-01	3.7020E-02	1.0848E+00	2.1439E+00	3.5340E-02	-7.1786E-03	5.1601E-03	2.4543E-01	1.1736E+00	-1.9330E-03
8.4986E-03	-4.6784E-01	3.2521E-02	1.0119E+00	2.0573E+00	3.2041E-02	-1.3304E-02	6.4924E-03	2.7926E-01	1.1422E+00	-1.4646E-03
1.0623E-02	-4.5417E-01	2.8250E-02	8.9363E-01	2.0005E+00	2.4498E-02	-1.9092E-02	8.6097E-03	4.7653E-01	1.1434E+00	-3.1148E-03
1.2748E-02	-4.2959E-01	2.8113E-02	7.9562E-01	1.5522E+00	2.5977E-02	-2.2764E-02	1.0591E-02	5.8593E-01	7.3935E-01	-5.0929E-03
1.5935E-02	-3.9146E-01	2.6264E-02	5.7774E-01	8.8273E-01	2.8032E-02	-2.8617E-02	1.5348E-02	5.6992E-01	7.0000E-01	-6.0103E-03
1.9476E-02	-3.5912E-01	2.7002E-02	3.9351E-01	6.6420E-01	2.8354E-02	-3.8310E-02	2.0518E-02	7.0646E-01	7.7754E-01	-8.4694E-03
2.3725E-02	-3.1006E-01	2.5839E-02	1.4724E-02	1.4369E-01	3.0011E-02	-6.1203E-02	2.5161E-02	6.9723E-01	8.0270E-01	-9.3768E-03
2.9037E-02	-2.4704E-01	2.6440E-02	-1.7960E-01	1.4988E-01	5.7746E-02	-7.0972E-02	3.2559E-02	8.4448E-01	1.5923E+00	-1.0530E-02
3.5411E-02	-1.5821E-01	2.7679E-02	-2.9021E-01	3.5675E-01	1.3940E-01	-9.7888E-02	4.1292E-02	9.9083E-01	1.8427E+00	-1.1676E+00
4.3201E-02	-6.4954E-02	3.0265E-02	-3.8631E-02	6.8636E-01	3.3995E-01	-1.0456E-01	5.3375E-02	9.5797E-01	1.1676E+00	-1.0525E-03
5.2762E-02	8.5668E-02	2.9631E-02	3.9388E-01	2.6209E-01	6.7371E-01	-1.4542E-01	4.5787E-02	1.0036E+00	1.9889E+00	-2.1408E-03
6.4448E-02	2.0524E-01	2.8572E-02	3.3615E-01	-4.4577E-02	8.9518E-01	-1.3634E-01	1.8501E-02	8.8215E-01	2.3828E+00	-2.4805E-03
7.8966E-02	2.8310E-01	2.2094E-02	1.5841E-02	-8.2014E-02	9.7660E-01	-1.1570E-01	1.8301E-02	6.7238E-01	2.1059E+00	-6.8380E-05
9.6317E-02	3.3143E-01	1.5161E-02	-9.7501E-02	1.7740E-02	9.9602E-01	-1.1487E-01	1.1347E-03	3.1302E-01	5.8127E-01	-8.6142E-04
1.1756E-01	3.5011E-01	1.0648E-02	-1.6141E-01	1.6141E-01	9.9907E-01	-1.1487E-01	6.0741E-03	3.1302E-01	1.8150E-01	-7.7510E-04
1.4377E-01	3.7235E-01	7.9842E-03	-1.6194E-01	-1.2918E-03	1.0000E+00	-1.3416E-01	3.8624E-03	1.2500E-01	1.4680E-01	-8.0829E-04
1.7564E-01	4.2931E-01	6.6401E-03	-1.9533E-01	-9.6001E-02	1.0000E+00	-1.2437E-01	2.9378E-03	9.6148E-02	2.2722E-01	-7.1354E-04
2.1477E-01	4.3843E-01	5.2824E-03	-2.4690E-01	-3.4162E-02	1.0000E+00	-1.4551E-01	1.9306E-03	1.3886E-01	2.5015E-01	-4.5882E-04
2.6204E-01	4.6497E-01	4.2636E-03	-3.3077E-01	4.6547E-02	1.0000E+00	-1.3877E-01	1.5120E-03	2.7666E-01	2.2722E-01	-7.1354E-04
3.1976E-01	4.7965E-01	3.5088E-03	-3.6584E-01	1.8796E-01	1.0000E+00	-1.3121E-01	1.2285E-03	2.4666E-01	6.4813E-01	-4.3759E-01
3.9093E-01	5.0216E-01	2.4151E-03	-4.2429E-01	5.8444E-01	1.0000E+00	-1.1594E-01	9.7797E-04	1.0446E-01	4.3759E-01	-9.6291E-05
4.7734E-01	5.0328E-01	1.6767E-03	-2.2222E-01	2.1301E-01	1.0000E+00	-1.0291E-01	9.4345E-04	-2.1139E-01	1.3179E-01	5.6758E-04
5.8286E-01	4.9495E-01	2.3539E-03	3.3827E-02	1.7944E-02	1.0000E+00	-7.7057E-02	2.6571E-04	2.6214E-01	1.5440E-01	-1.1261E-02
7.1211E-01	4.8000E-01	1.8215E-03	3.7659E-01	-7.4408E-03	1.0000E+00	-5.2815E-02	1.2291E-04	1.1261E-02	-4.5440E-01	-2.0331E-01
8.6569E-01	4.6890E-01	1.0102E-03	1.7309E-01	-6.0589E-01	1.0000E+00	-3.2339E-02	9.6984E-05	-1.4118E-01	2.0331E-01	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-10 U and V component velocity measurements made at X/T = -.15 with the laser anemometer, plane 1.

File E228770.RES
 U and V component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 26
 density (kilograms per meter cubed) = 1.099213
 viscosity (meters squared per second) = 1.678899E-05
 Atmospheric pressure (Pascals) = 94370
 Velocity of undisturbed free stream (Uref in m/s) = 27.54494
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09409E-03
 Location of traverse; X/T = -.1034 Z/T = 0 = 6736.062

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	-2.0274E-01	2.0152E-02	-5.2982E-01	-3.2408E-01	3.3163E-02	-2.0701E-03	8.3628E-05	-3.3663E-02	7.0308E-01	
1.7705E-03	-2.3261E-01	1.9842E-02	-6.4459E-01	-7.9031E-02	7.1677E-03	-3.4742E-03	1.3770E-04	-4.4047E-01	1.4175E+00	
2.4788E-03	-2.3925E-01	2.4782E-02	-4.2425E-01	-3.6252E-01	3.0165E-02	-4.6859E-03	1.1489E-04	-2.2563E-01	1.2824E+00	
3.1870E-03	-2.8903E-01	2.6466E-02	-3.3110E-01	-4.8447E-01	1.8724E-02	-3.5963E-03	1.4636E-04	-4.5992E-02	1.3532E+00	
3.8952E-03	-3.2494E-01	2.6374E-02	-6.9559E-02	-5.3719E-01	8.6054E-03	-6.6174E-03	2.4416E-04	-2.8701E-01	1.5865E+00	6.9773E-05
4.6034E-03	-3.8377E-01	2.7891E-02	4.0763E-02	-3.3659E-01	6.7924E-03	-6.4072E-03	3.4620E-04	-1.3881E-01	1.4965E+00	5.5950E-04
5.6657E-03	-4.2854E-01	2.4076E-02	8.5391E-02	-1.6495E-02	4.0562E-03	-4.0710E-03	8.2364E-04	-1.6249E-01	2.1230E+00	-2.5456E-03
7.0822E-03	-4.2960E-01	2.3002E-02	8.1426E-02	-5.7601E-02	2.3116E-03	-1.4594E-02	1.4875E-03	9.5809E-02	1.3818E+00	-2.3274E-03
8.4986E-03	-4.0854E-01	2.2060E-02	2.9508E-02	1.7275E-01	5.3862E-03	-2.3579E-02	2.3899E-03	4.6296E-01	1.9662E+00	-1.9139E-03
1.0233E-02	-3.7715E-01	1.9375E-02	3.1279E-03	2.6448E-02	3.9756E-03	-3.7514E-02	2.7255E-03	3.9291E-01	1.1505E+00	-1.9847E-03
1.2748E-02	-3.5469E-01	1.7427E-02	-3.7939E-02	-4.6033E-02	3.3548E-03	-4.1749E-02	4.5634E-03	2.7365E-01	1.3520E+00	-7.3411E-04
1.5935E-02	-3.1021E-01	1.5017E-02	-2.2606E-02	-1.3397E-01	4.6231E-03	-6.1898E-02	5.5131E-03	2.2292E-01	1.2347E+00	-1.5862E-03
1.9476E-02	-2.6849E-01	1.4493E-02	-7.5380E-02	1.6186E-01	1.2560E-02	-8.1188E-02	6.4817E-03	-1.5230E-02	1.5006E+00	-1.0160E-03
2.3725E-02	-2.1125E-01	1.3552E-02	-9.7672E-02	3.0791E-01	3.4135E-02	-1.0365E-01	6.9567E-03	-3.0717E-01	1.1059E+00	1.1017E-04
2.9037E-02	-1.5002E-01	1.2032E-02	6.2249E-02	2.4883E-01	8.5171E-02	-1.2613E-01	7.5400E-03	-4.8477E-01	1.3485E+00	1.1552E-04
3.5411E-02	-9.8873E-02	1.0441E-02	1.8536E-03	2.4755E-01	1.6372E-01	-1.4807E-01	6.9955E-03	-3.5533E-01	6.5449E-01	-1.4664E-04
4.3201E-02	-4.8102E-02	1.0053E-02	1.2408E-01	1.8317E-01	3.1044E-01	-1.7842E-01	9.6066E-03	-7.8173E-01	1.4623E+00	-9.1079E-04
5.2762E-02	2.0581E-02	9.9998E-03	1.8440E-01	9.7524E-02	5.8085E-01	-1.9824E-01	9.2685E-03	-6.1323E-01	1.0961E+00	-1.2513E-03
6.4498E-02	8.142E-02	1.1344E-02	6.7211E-01	1.5014E+00	7.8635E-01	-2.1317E-01	7.7910E-03	-4.3792E-01	6.1320E-01	-9.5781E-04
7.8966E-02	1.4835E-01	1.0716E-02	4.7421E-01	6.4975E-01	9.3760E-01	-2.2086E-01	6.5414E-03	-2.5902E-01	6.7587E-01	-7.1861E-04
9.6317E-02	2.0032E-01	9.3003E-03	2.0614E-01	1.4062E-01	9.8558E-01	-2.1871E-01	5.0891E-03	-1.3286E-02	1.9967E-01	-6.6186E-04
1.1756E-01	2.2711E-01	7.2186E-03	6.3301E-02	1.2945E-02	9.9727E-01	-2.2332E-01	4.2915E-03	-3.7993E-03	2.9039E-01	-6.4561E-04
1.4377E-01	2.6022E-01	6.0278E-03	1.8004E-03	-4.6874E-02	1.0000E+00	-2.2199E-01	3.8292E-03	8.7064E-02	1.4163E-01	-6.0005E-04
1.7564E-01	3.1795E-01	5.4548E-03	-9.3623E-02	-8.6726E-02	1.0000E+00	-2.1765E-01	2.7492E-03	9.6331E-02	5.8573E-02	-6.8538E-04
2.1459E-01	3.2790E-01	4.6292E-03	-1.0825E-01	-9.4799E-02	1.0000E+00	-2.1894E-01	2.3404E-03	4.5625E-02	1.4342E-01	-5.8014E-04
2.6204E-01	3.5621E-01	4.0208E-03	-2.2753E-01	7.5866E-02	1.0000E+00	-2.0094E-01	1.8402E-03	2.2886E-02	1.3672E-01	-4.3274E-04
3.1976E-01	3.8071E-01	3.1975E-03	-2.3822E-01	2.1665E-01	1.0000E+00	-2.8882E-01	1.5459E-03	-2.1065E-01	3.8945E-01	-2.3457E-04
3.9093E-01	3.8722E-01	2.2816E-03	-1.8618E-01	1.8228E-01	1.0000E+00	-1.5726E-01	1.2348E-03	-2.6766E-01	5.1741E-01	-6.1761E-05
4.7805E-01	3.7230E-01	1.6632E-03	-1.8417E-01	4.5801E-02	1.0000E+00	-1.2498E-01	9.3041E-04	-2.2792E-01	2.4942E-01	-1.0126E-04
5.8286E-01	3.6382E-01	1.3820E-03	1.7078E-01	-2.6450E-01	1.0000E+00	-8.6138E-02	2.1221E-04	-2.5512E-01	2.8644E-01	-2.0809E-06
7.1459E-01	3.4007E-01	1.2654E-03	1.8040E-01	-7.6573E-02	1.0000E+00	-5.4721E-02	1.5631E-04	-9.8378E-02	3.0183E-02	1.7121E-04
8.6969E-01	3.5032E-01	9.8218E-04	-1.1988E-01	-4.2339E-01	1.0000E+00	-3.3851E-02	1.4340E-04	-7.5116E-02	4.3455E-03	

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-11 U and V component velocity measurements made at X/T = -.10 with the laser anemometer, plane 1.

File E229770.3ES

U and V component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 26

density (kilograms per meter cubed) = 1.099213

viscosity (meters squared per second) = 1.678879E-05

Atmospheric pressure (Pascals) = 94370

Velocity of undisturbed free stream (Uref, in m/s) = 27.66959

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090394E-03

Estimated momentum thickness Reynolds number = 6760.438

Location of traverse; X/T = -.05 Z/T = 0

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	FFF	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0633E-03	-1.3368E-01	9.6460E-03	-9.2490E-01	3.7513E-01	2.5444E-02	-6.5914E-03	1.5355E-04	-8.9383E-01	1.4793E+00	-7.2927E-04
1.7705E-03	-1.7639E-01	1.5860E-02	-6.2167E-01	-2.2338E-01	3.2121E-02	-8.8439E-03	1.9998E-04	-8.8999E-01	1.3844E+00	-4.5106E-04
2.4788E-03	-2.2150E-01	1.9770E-02	-4.5741E-01	3.8623E-01	1.8978E-02	-6.5305E-03	1.4017E-04	-5.9603E-01	1.0866E+00	4.5383E-04
3.1870E-03	-2.7207E-01	1.7853E-02	-4.3536E-01	3.2928E-02	6.6624E-03	-8.9817E-03	3.2234E-04	-5.7352E-01	1.5342E+00	4.5383E-04
3.8952E-03	-2.9712E-01	1.6878E-02	-1.3184E-01	-1.7303E-01	9.0048E-03	-1.5940E-02	5.9798E-04	-1.3333E-01	7.7342E-01	-3.7873E-04
4.6034E-03	-2.7787E-01	1.4779E-02	-1.6178E-02	3.6382E-02	1.3111E-02	-3.6888E-02	1.8702E-03	4.1575E-02	8.0513E-01	-1.4847E-03
5.7720E-03	-2.5201E-01	1.2801E-02	-1.1749E-01	-1.3430E-01	1.2152E-02	-5.3287E-02	2.2769E-03	1.6352E-01	8.3660E-01	-3.5636E-04
7.0872E-03	-2.3417E-01	1.2566E-02	-1.2768E-01	-1.0907E-01	1.6389E-02	-7.3310E-02	2.9581E-03	1.3177E-01	3.8398E-01	2.2021E-04
8.4986E-03	-2.2043E-01	1.1250E-02	-1.2296E-01	-8.5709E-02	1.8043E-02	-8.8343E-02	3.9471E-03	2.2853E-01	7.0144E-01	8.3542E-04
1.0623E-02	-2.0256E-01	1.1297E-02	-7.0417E-02	4.3593E-02	2.8654E-02	-1.0670E-01	4.4285E-03	2.5733E-01	4.5581E-01	1.4545E-03
1.2748E-02	-1.8335E-01	1.0593E-02	-9.5950E-02	3.7831E-02	3.9566E-02	-1.1388E-01	5.4719E-03	1.1069E-01	3.7389E-01	1.6965E-03
1.5935E-02	-1.6378E-01	1.0090E-02	-2.9134E-02	-9.1194E-02	5.1276E-02	-1.1991E-01	5.9423E-03	2.1141E-01	4.5417E-01	1.6745E-03
1.9474E-02	-1.4321E-01	8.8433E-03	4.0242E-03	-5.4753E-02	4.0849E-02	-1.2921E-01	5.8166E-03	2.0974E-01	3.4409E-01	1.4335E-03
2.3725E-02	-1.2689E-01	9.1784E-03	1.6017E-01	-8.1744E-02	9.7571E-02	-1.4631E-01	5.9424E-03	3.1911E-01	6.5993E-01	1.4190E-03
2.9037E-02	-8.8842E-02	7.7642E-03	6.5112E-02	-3.7889E-03	1.5732E-01	-1.8124E-01	6.7160E-03	2.5077E-01	4.2758E-01	2.2591E-03
3.5411E-02	-4.8862E-02	7.6211E-03	1.2255E-01	3.0847E-01	2.7384E-01	-2.2454E-01	8.3304E-03	-3.1921E-02	1.6677E-01	2.7559E-03
4.3201E-02	-1.7838E-02	6.8165E-03	5.0652E-02	6.7922E-02	4.0952E-01	-2.2405E-01	7.4989E-03	2.1652E-02	2.4842E-01	2.0941E-03
5.2762E-02	2.1137E-02	6.2992E-03	6.0298E-02	1.2627E-01	6.0809E-01	-2.3677E-01	6.7866E-03	3.9055E-02	2.3397E-01	1.4082E-03
6.4448E-02	4.3301E-02	5.6047E-03	9.3228E-02	2.3436E-01	7.2097E-01	-2.7957E-01	6.9493E-03	-1.0344E-01	1.1147E-01	1.1889E-03
7.8966E-02	8.9892E-02	5.3838E-03	5.1153E-02	9.9847E-02	8.9371E-01	-2.7934E-01	6.0333E-03	-3.8663E-02	1.0351E-01	2.7723E-04
9.6317E-02	1.1395E-01	4.6079E-03	3.7191E-02	-1.3301E-01	9.5332E-01	-3.0030E-01	5.5384E-03	-2.5116E-02	1.8652E-01	6.2565E-05
1.1736E-01	1.3387E-01	4.6976E-03	4.3063E-02	1.1400E-01	9.7161E-01	-3.2629E-01	5.3815E-03	-5.4715E-02	4.7500E-02	1.4984E-04
1.4377E-01	1.4991E-01	3.8108E-03	-2.1192E-02	5.2637E-02	9.9002E-01	-3.2898E-01	5.1134E-03	-1.7051E-01	9.6739E-02	-1.1114E-04
1.7564E-01	1.7717E-01	3.9065E-03	-7.9754E-02	2.1649E-01	9.9547E-01	-3.1364E-01	3.8648E-03	-3.3991E-02	-2.5829E-01	-2.5061E-04
2.1459E-01	1.8789E-01	3.1644E-03	-1.4646E-01	-2.8191E-02	1.0000E+00	-3.0317E-01	3.8918E-03	-1.6484E-01	1.5628E-01	1.8204E-04
2.6204E-01	2.1880E-01	3.0412E-03	-8.5038E-02	2.9585E-01	1.0000E+00	-2.7663E-01	2.9619E-03	-1.9415E-01	-2.6965E-02	5.4557E-05
3.1976E-01	2.0713E-01	2.2593E-03	-1.2542E-02	3.9352E-01	1.0000E+00	-1.9835E-01	2.1401E-03	-2.5933E-01	-5.0404E-03	1.2082E-04
3.9093E-01	2.4096E-01	1.9126E-03	4.8631E-02	1.6126E-01	1.0000E+00	-1.9835E-01	2.2521E-03	-2.9808E-01	2.1320E-02	5.5589E-04
4.7734E-01	2.1795E-01	1.4704E-03	2.6924E-01	2.6024E-02	1.0000E+00	-1.0174E-01	9.4999E-04	-1.0764E-01	-3.3756E-01	4.3153E-04
5.8286E-01	2.1472E-01	1.1244E-03	2.0523E-01	6.9924E-01	1.0000E+00	-6.2222E-02	5.3974E-04	-7.2909E-02	-4.5853E-01	
7.1211E-01	2.1222E-01	7.4186E-04	1.7053E-01	3.1647E-01	1.0000E+00	-4.6747E-02	7.5394E-04	-2.3000E-01	-8.1870E-02	
8.6969E-01	2.1185E-01	6.4247E-04	2.6825E-01	-2.4518E-01	1.0000E+00					

FFF = proportion of time for which the flow is in the downstream (+ve X) direction

Table F.1-12 U and V component velocity measurements made at X/T = -.05 with the laser anemometer, plane 1.

File E253770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.11542

viscosity (meters squared per second) = 1.632107E-05

Atmospheric pressure (Pascals) = 94160

Velocity of undisturbed free stream (Uref, in m/s) = 27.514

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09501E-03

Estimated momentum thickness Reynolds number = 6922.957

Location of traverse; X/T = -.65 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-1.5172E-02	3.3039E-03
2.4789E-03	-1.3638E-02	2.9824E-03
3.5411E-03	-1.7250E-02	3.3699E-03
4.6034E-03	-1.7760E-02	3.3305E-03
5.6657E-03	-1.3963E-02	3.5082E-03
7.4363E-03	-1.4691E-02	3.4272E-03
9.5609E-03	-1.6517E-02	3.7339E-03
1.2394E-02	-9.9035E-03	3.4323E-03
1.6112E-02	-8.4051E-03	3.3884E-03
2.0361E-02	-1.4702E-02	3.8892E-03
2.5850E-02	-1.3825E-02	3.4834E-03
3.2932E-02	-1.1098E-02	3.2147E-03
4.2847E-02	-1.4759E-02	3.2355E-03
5.4344E-02	-1.4506E-02	3.1480E-03
6.9942E-02	-1.4645E-02	3.4967E-03
8.8577E-02	-1.1790E-02	2.8570E-03
1.1385E-01	-1.0946E-02	2.6148E-03
1.4412E-01	-7.8900E-03	2.4514E-03
1.8414E-01	-4.6358E-03	2.0820E-03
2.3513E-01	-2.8210E-04	2.0227E-03
3.0028E-01	-4.1289E-03	1.4027E-03
3.8368E-01	1.1533E-03	6.6830E-04
4.8973E-01	6.4577E-03	2.7251E-04
6.2589E-01	1.6319E-02	1.4644E-04
7.9887E-01	1.8708E-02	5.7955E-05
1.0205E+00	1.5636E-02	3.9504E-05
1.3028E+00	1.6975E-02	
1.6636E+00	2.0236E-02	
2.1246E+00	1.7196E-02	

Table F.1-13 W component velocity measurements made at X/T = -.65 with the laser anemometer, plane 1.

File E254770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.11542

viscosity (meters squared per second) = 1.632107E-05

Atmospheric pressure (Pascals) = 94160

Velocity of undisturbed free stream (Uref, in m/s) = 27.44197

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097157E-03

Estimated momentum thickness Reynolds number = 6908.454

Location of traverse; X/T = -.5 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-4.3182E-03	3.8665E-03
2.1246E-03	-1.3159E-02	3.6569E-03
3.1870E-03	-8.8190E-03	3.9639E-03
3.8952E-03	-8.5039E-03	4.1362E-03
4.7805E-03	-9.2981E-03	3.9848E-03
5.6657E-03	-9.5957E-03	3.6696E-03
7.6133E-03	-1.0581E-02	3.9106E-03
9.5609E-03	-1.2314E-02	4.1975E-03
1.2394E-02	-1.0274E-02	3.8442E-03
1.5935E-02	-7.8838E-03	3.9394E-03
2.0184E-02	-6.9510E-03	4.1429E-03
2.5850E-02	-6.5265E-03	4.1382E-03
3.5057E-02	-1.0018E-02	3.9436E-03
4.2493E-02	-7.4367E-03	3.7863E-03
5.4178E-02	-4.0317E-03	3.7314E-03
5.4533E-02	-1.0241E-02	3.7350E-03
6.9051E-02	-1.1063E-02	3.5928E-03
8.8527E-02	-1.1534E-02	3.1302E-03
1.1296E-01	-1.2044E-02	2.7236E-03
1.4518E-01	-1.1435E-02	2.4970E-03
1.8449E-01	-8.0318E-03	2.0822E-03
2.3548E-01	-1.4126E-02	1.3298E-03
3.0028E-01	-1.1346E-02	8.6830E-04
3.8350E-01	-8.3298E-03	3.8920E-04
4.8973E-01	-2.6767E-03	5.7213E-05
6.2571E-01	6.0260E-03	
7.9887E-01	9.3490E-03	
1.0205E+00	7.1678E-03	
1.3028E+00	7.4067E-03	
1.6636E+00	7.9132E-03	
2.1246E+00	5.3421E-03	

Table F.1-14 W component velocity measurements made at X/T = -.50 with the laser anemometer, plane 1.

File E255770.RES
W component velocity measurements obtained with the laser anemometer
Flow temperature (degrees centigrade) = 21
density (kilograms per meter cubed) = 1.108016
viscosity (meters squared per second) = 1.641256E-05
Atmospheric pressure (Pascals) = 93535
Velocity of undisturbed free stream (Uref, in m/s) = 27.5105
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.095114E-03
Estimated momentum thickness Reynolds number = 6883.667
Location of traverse; X/T = -.4 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-6.2594E-03	4.1651E-03
2.4788E-03	-8.0643E-03	4.6401E-03
4.2493E-03	-3.1648E-03	4.9119E-03
5.6657E-03	-5.6687E-03	5.5567E-03
7.7904E-03	-5.4854E-03	5.9371E-03
9.5609E-03	-5.1363E-03	5.8740E-03
1.2748E-02	-4.2339E-03	6.1160E-03
1.5935E-02	-5.7239E-03	6.1816E-03
2.0184E-02	-7.9040E-03	6.4042E-03
2.7620E-02	-1.3950E-02	5.7523E-03
3.2932E-02	-1.1839E-02	5.9137E-03
4.2847E-02	-4.9969E-03	5.5653E-03
5.4178E-02	-1.0935E-02	4.7906E-03
6.9051E-02	-3.5259E-03	4.3978E-03
8.8173E-02	-5.3912E-03	3.9598E-03
1.1367E-01	-2.5367E-03	3.0627E-03
1.4518E-01	-7.3761E-04	2.7167E-03
1.8414E-01	1.0896E-04	2.1752E-03
2.3513E-01	-9.5325E-04	1.3321E-03
3.0276E-01	-4.0277E-04	9.7785E-04
3.8810E-01	6.8042E-03	3.9598E-04
4.8973E-01	1.1941E-02	3.7107E-05
6.2571E-01	1.9508E-02	2.5906E-05
7.9887E-01	1.7616E-02	
1.0202E+00	5.3676E-03	
1.3024E+00	5.8516E-03	
1.6636E+00	-8.1109E-03	
2.1246E+00	-3.0291E-03	

Table F.1-15 W component velocity measurements made at X/T = -.40 with the laser anemometer, plane 1.

File E256770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.108016

viscosity (meters squared per second) = 1.641256E-05

Atmospheric pressure (Pascals) = 93535

Velocity of undisturbed free stream (Uref, in m/s) = 27.56924

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093367E-03

Estimated momentum thickness Reynolds number = 6895.424

Location of traverse; X/T = -.35 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-4.1004E-03	8.2953E-03
2.4789E-03	-3.3504E-03	8.3648E-03
3.8952E-03	-4.0529E-03	8.1360E-03
4.9575E-03	-8.5503E-03	7.2488E-03
6.5510E-03	-2.9996E-03	8.2059E-03
8.3215E-03	-5.5343E-03	8.5862E-03
1.0092E-02	-5.5037E-03	8.2268E-03
1.2394E-02	-7.3077E-03	9.1103E-03
1.6112E-02	-1.1887E-02	8.5603E-03
2.0361E-02	-1.4441E-02	7.9537E-03
2.6558E-02	-1.2322E-02	8.0219E-03
3.3286E-02	-7.4194E-03	8.6515E-03
4.2493E-02	-1.0963E-02	7.2915E-03
5.4356E-02	-8.5086E-03	6.4535E-03
6.9228E-02	-5.3569E-03	5.2326E-03
8.8527E-02	7.7105E-05	3.8443E-03
1.1579E-01	-6.2303E-03	3.0958E-03
1.4412E-01	-6.4789E-03	2.6522E-03
1.8414E-01	-6.8257E-03	2.2210E-03
2.3513E-01	-1.4229E-02	1.4210E-03
3.0064E-01	-3.5497E-03	1.0012E-03
3.8350E-01	1.7833E-03	5.8287E-04
4.8973E-01	4.2201E-03	2.2033E-04
6.2642E-01	7.2282E-03	
7.9887E-01	-6.5343E-03	
1.0202E+00	-2.9627E-03	
1.3028E+00	-1.2543E-03	
1.6636E+00	-8.3537E-04	
2.1264E+00	-8.1759E-03	

Table F.1-16 W component velocity measurements made at X/T = -.35 with the laser anemometer, plane 1.

File E257770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.108075

viscosity (meters squared per second) = 1.641256E-05

Atmospheric pressure (Pascals) = 93540

Velocity of undisturbed free stream (Uref, in m/s) = 27.47483

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.096177E-03

Estimated momentum thickness Reynolds number = 6876.526

Location of traverse; X/T = -.3 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-8.0899E-03	7.4744E-03
2.6558E-03	-9.7721E-03	7.6543E-03
3.5411E-03	-1.5113E-02	7.9873E-03
4.6034E-03	-1.6430E-02	8.3015E-03
6.1969E-03	-2.1996E-02	8.5235E-03
7.4363E-03	-1.7185E-02	9.1085E-03
9.5609E-03	-1.2006E-02	8.4027E-03
1.3102E-02	-1.0652E-02	9.3941E-03
1.6643E-02	-1.4208E-02	1.0080E-02
2.0184E-02	-1.5743E-02	1.0280E-02
2.6204E-02	-3.2118E-02	1.0349E-02
3.2932E-02	-2.3585E-02	1.0070E-02
4.3378E-02	-1.4734E-02	1.1581E-02
5.4178E-02	-2.3587E-02	1.0323E-02
6.9051E-02	-1.5922E-02	9.8340E-03
8.8173E-02	-1.7670E-02	5.9788E-03
1.1296E-01	-1.6197E-02	4.2181E-03
1.4412E-01	-1.2093E-02	3.4277E-03
1.8414E-01	-1.1436E-02	2.8629E-03
2.3513E-01	-2.2522E-03	1.3700E-03
3.3215E-01	1.0960E-03	8.3645E-04
3.8350E-01	8.3824E-04	6.1391E-04
4.8973E-01	8.1910E-03	2.5427E-04
6.2571E-01	1.0355E-02	1.0557E-05
7.9887E-01	2.8533E-03	
1.0202E+00	-4.8080E-03	
1.3028E+00	-2.6953E-03	
1.6636E+00	-1.8225E-03	
2.1254E+00	-5.2215E-03	

Table F.1-17 W component velocity measurements made at X/T = -.30 with the laser anemometer, plane 1.

File E258770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.108075

viscosity (meters squared per second) = 1.641256E-05

Atmospheric pressure (Pascals) = 93540

Velocity of undisturbed free stream (Uref, in m/s) = 27.53058

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094516E-03

Estimated momentum thickness Reynolds number = 6887.686

Location of traverse; X/T = -.25 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	1.4438E-02	1.2460E-02
2.4788E-03	1.2103E-02	1.2581E-02
3.1870E-03	1.3431E-02	1.2003E-02
4.6034E-03	1.2456E-02	1.2329E-02
5.6657E-03	8.1122E-03	1.2449E-02
7.4363E-03	4.6821E-03	1.3038E-02
9.5609E-03	2.0204E-03	1.3353E-02
1.2394E-02	-2.1301E-03	1.4649E-02
1.5935E-02	-4.9151E-03	1.4926E-02
2.0181E-02	-1.4711E-03	1.5230E-02
2.6204E-02	5.7821E-03	1.5259E-02
3.3109E-02	5.8004E-03	1.7038E-02
4.3904E-02	-3.7589E-04	1.8590E-02
5.4178E-02	8.8447E-03	1.8489E-02
6.9051E-02	7.4711E-03	1.5008E-02
8.8173E-02	1.5474E-02	1.0565E-02
1.1296E-01	2.3841E-03	4.7149E-03
1.4465E-01	3.6594E-03	2.9736E-03
1.8449E-01	7.6755E-03	2.3498E-03
2.3513E-01	1.7371E-03	1.3964E-03
3.0170E-01	3.4851E-03	9.6519E-04
3.8350E-01	4.1336E-03	5.8476E-04
4.8973E-01	7.5478E-03	2.2308E-04
6.2571E-01	5.5542E-03	
7.9887E-01	1.5258E-02	
1.0212E+00	-8.9436E-04	
1.3028E+00	1.0531E-03	2.7239E-05
1.6636E+00	-1.3465E-03	
2.1246E+00	-1.1189E-02	

Table F.1-18 W component velocity measurements made at X/T = -.25 with the laser anemometer, plane 1.

File E259770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21.8

density (kilograms per meter cubed) = 1.111979

viscosity (meters squared per second) = 1.641256E-05

Atmospheric pressure (Pascals) = 94125

Velocity of undisturbed free stream (Uref, in m/s) = 27.60673

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092255E-03

Estimated momentum thickness Reynolds number = 6902.923

Location of traverse; X/T = -.2 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	-9.5800E-03	9.1641E-03
2.4788E-03	-1.1709E-02	8.6206E-03
3.5411E-03	-1.1693E-02	9.6447E-03
4.6034E-03	-1.1811E-02	9.8746E-03
5.8428E-03	-1.0553E-02	1.0181E-02
7.4363E-03	-9.6145E-03	1.0585E-02
9.5609E-03	-8.5868E-03	1.1001E-02
1.2394E-02	-1.5567E-03	1.1029E-02
1.5935E-02	6.9066E-03	1.1403E-02
2.0184E-02	7.1552E-03	1.2120E-02
2.5850E-02	-1.6012E-04	1.4926E-02
3.2932E-02	-4.5015E-03	1.7805E-02
4.2493E-02	1.3903E-02	1.7172E-02
5.4178E-02	1.1810E-02	1.5813E-02
6.9051E-02	2.3706E-02	1.1448E-02
8.8527E-02	2.0411E-02	7.7135E-03
1.1367E-01	4.4941E-03	3.6040E-03
1.4412E-01	1.0112E-02	2.6081E-03
1.8414E-01	1.4760E-02	2.0821E-03
2.3548E-01	3.0216E-03	1.2484E-03
3.0241E-01	-1.7987E-03	8.8523E-04
3.8456E-01	4.0865E-03	4.9489E-04
4.8973E-01	3.7012E-03	1.7542E-04
6.2571E-01	1.0223E-02	2.6425E-07
8.0028E-01	6.4064E-03	
1.0202E+00	-1.6652E-03	
1.3028E+00	-3.3959E-03	
1.6636E+00	-4.9685E-03	
2.1246E+00	-2.6258E-02	

Table F.1-19 W component velocity measurements made at X/T = -.20 with the laser anemometer, plane 1.

File E260770.RES

W component velocity measurements obtained with the laser anemometer

Flow temperature (degrees centigrade) = 21.8

density (kilograms per meter cubed) = 1.111979

viscosity (meters squared per second) = 1.641256E-05

Atmospheric pressure (Pascals) = 94125

Velocity of undisturbed free stream (Uref, in m/s) = 27.58169

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092998E-03

Estimated momentum thickness Reynolds number = 6897.914

Location of traverse; X/T = -.15 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	2.2062E-03	4.7129E-03
2.4788E-03	1.6398E-04	4.5506E-03
3.5411E-03	2.3325E-03	4.6265E-03
4.7805E-03	-4.2827E-04	4.9858E-03
6.0198E-03	1.7122E-03	4.9718E-03
7.6133E-03	-6.6110E-04	5.4677E-03
9.5609E-03	-8.4972E-03	5.7539E-03
1.2394E-02	-1.7709E-02	6.0018E-03
1.6112E-02	-1.9382E-02	7.9352E-03
2.0184E-02	-1.3929E-02	8.2362E-03
2.6381E-02	3.0520E-03	8.7171E-03
3.2932E-02	5.9274E-03	8.6015E-03
4.2847E-02	-1.6256E-02	1.0550E-02
5.4356E-02	1.3545E-03	8.7274E-03
6.9051E-02	-9.2893E-03	7.4202E-03
8.8173E-02	4.7730E-03	4.6400E-03
1.1314E-01	1.1849E-02	3.4453E-03
1.4412E-01	7.9553E-03	2.5170E-03
1.8484E-01	8.8524E-03	1.9915E-03
2.3548E-01	3.2974E-03	1.3959E-03
3.0028E-01	5.4758E-03	8.8125E-04
3.8350E-01	3.0908E-03	5.3296E-04
4.8973E-01	6.3914E-03	2.1439E-04
6.2571E-01	-2.4656E-03	8.0378E-06
7.9887E-01	4.9490E-03	4.8339E-06
1.0202E+00	-1.7094E-02	1.2793E-05
1.3028E+00	-1.4269E-02	
1.6636E+00	-1.9393E-02	
2.1246E+00	-3.9880E-02	

Table F.1-20 W component velocity measurements made at X/T = -.15 with the laser anemometer, plane 1.

File E261770.RES
W component velocity measurements obtained with the laser anemometer
Flow temperature (degrees centigrade) = 22
density (kilograms per meter cubed) = 1.113882
viscosity (meters squared per second) = 1.637584E-05
Atmospheric pressure (Pascals) = 94350
Velocity of undisturbed free stream (Uref, in m/s) = 27.58593
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092872E-03
Estimated momentum thickness Reynolds number = 6914.23
Location of traverse; X/T = -.1 Z/T = 0

Y/T	W/Uref	w2/Uref2
1.7705E-03	1.3382E-02	2.8013E-03
2.6559E-03	1.0332E-02	2.9137E-03
3.5411E-03	8.7575E-03	3.0153E-03
4.6034E-03	1.8416E-03	3.0926E-03
5.6657E-03	-5.3311E-03	3.3090E-03
7.7904E-03	-7.9328E-03	3.5463E-03
9.5609E-03	-8.5543E-03	3.5967E-03
1.2394E-02	-7.0963E-03	3.9098E-03
1.5935E-02	-3.6784E-03	3.9496E-03
2.0184E-02	8.8806E-03	4.0561E-03
2.5850E-02	1.6563E-02	3.8173E-03
3.3286E-02	-3.7989E-03	4.6206E-03
4.2493E-02	-4.3872E-03	4.6373E-03
5.4178E-02	1.1418E-02	3.8295E-03
6.9051E-02	-2.1082E-03	3.6189E-03
8.8881E-02	-4.4443E-03	2.9687E-03
1.1402E-01	-9.9315E-04	2.5785E-03
1.4412E-01	-9.8846E-04	2.2485E-03
1.8414E-01	8.8431E-03	1.6800E-03
2.3548E-01	7.9856E-03	1.2506E-03
3.0028E-01	-3.7345E-03	9.2579E-04
3.8492E-01	-6.2575E-03	5.4788E-04
4.9009E-01	-8.1312E-03	2.3683E-04
6.3137E-01	3.2034E-03	1.6634E-05
7.9887E-01	-4.8422E-04	1.6186E-06
1.0205E+00	-2.3658E-02	
1.3031E+00	-3.3127E-02	
1.6629E+00	-3.0254E-02	

Table F.1-21 W component velocity measurements made at X/T = -.10 with the laser anemometer, plane 1.

File E262770.RES

W component velocity measurements obtained with the laser anemometer
 Flow temperature (degrees centigrade) = 21.9
 density (kilograms per meter cubed) = 1.114791
 viscosity (meters squared per second) = 1.637584E-05
 Atmospheric pressure (Pascals) = 94395
 Velocity of undisturbed free stream (Uref, in m/s) = 27.60781
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092223E-03
 Estimated momentum thickness Reynolds number = 6918.617
 Location of traverse; X/T = -.05 Z/T = 0

Y/T	W/Uref	w2/Uref2
2.1246E-03	-1.0076E-04	3.0926E-03
2.8329E-03	-3.4930E-03	3.0297E-03
3.5411E-03	-7.4941E-03	3.0254E-03
4.6034E-03	-9.9269E-03	3.1084E-03
5.6657E-03	-8.8350E-03	3.1006E-03
7.4363E-03	-9.1652E-03	3.1351E-03
9.5609E-03	-6.9701E-03	3.2276E-03
1.2394E-02	1.0910E-03	3.2643E-03
1.6289E-02	1.2055E-02	3.2106E-03
2.7975E-02	9.6040E-03	2.8858E-03
3.2932E-02	-3.6468E-03	3.5616E-03
5.4533E-02	9.6487E-04	2.6339E-03
6.5510E-02	-6.6867E-04	2.9977E-03
8.9589E-02	5.8319E-03	3.2980E-03
1.1367E-01	7.3220E-03	2.9205E-03
1.4448E-01	2.0251E-03	2.2175E-03
1.8449E-01	1.1132E-02	2.8380E-03
2.4115E-01	4.6818E-03	1.6575E-03
3.0099E-01	1.7128E-03	1.1413E-03
4.0085E-01	-5.8927E-04	5.3764E-04
5.0744E-01	-6.4123E-03	2.5670E-04
6.3916E-01	-1.8666E-02	2.0208E-05
7.9887E-01	-2.5891E-02	1.5456E-05
1.0347E+00	-3.3543E-02	2.4584E-06
1.3028E+00	-5.5483E-02	8.5494E-06
1.6714E+00	-6.7619E-02	1.2324E-05

Table F.1-22 W component velocity measurements made at X/T = -.05 with the laser anemometer, plane 1.

F.2 LDV MEASUREMENTS IN PLANE 3

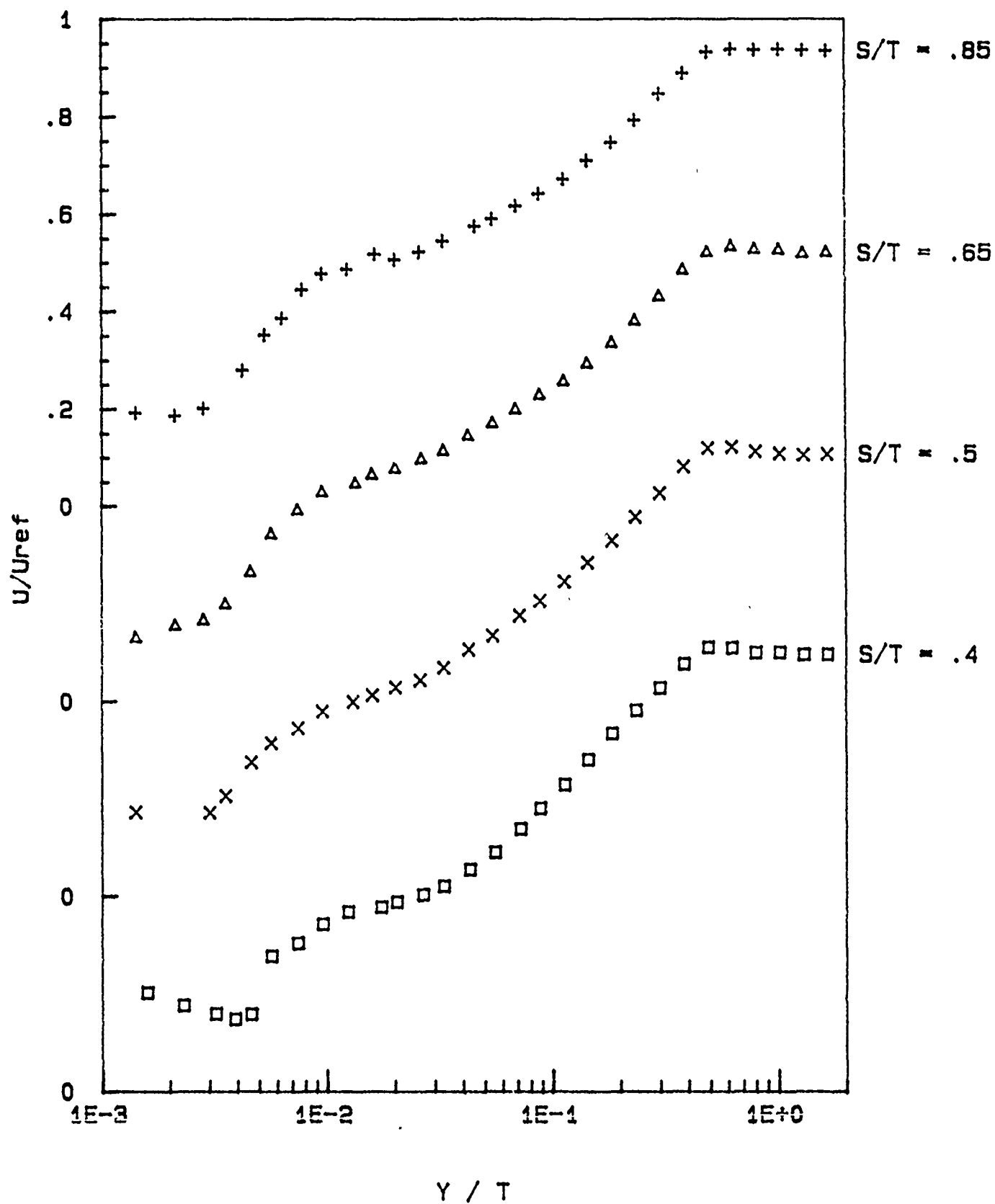


Figure F.2-1(a) Profiles of mean-velocity component U , plane 3.

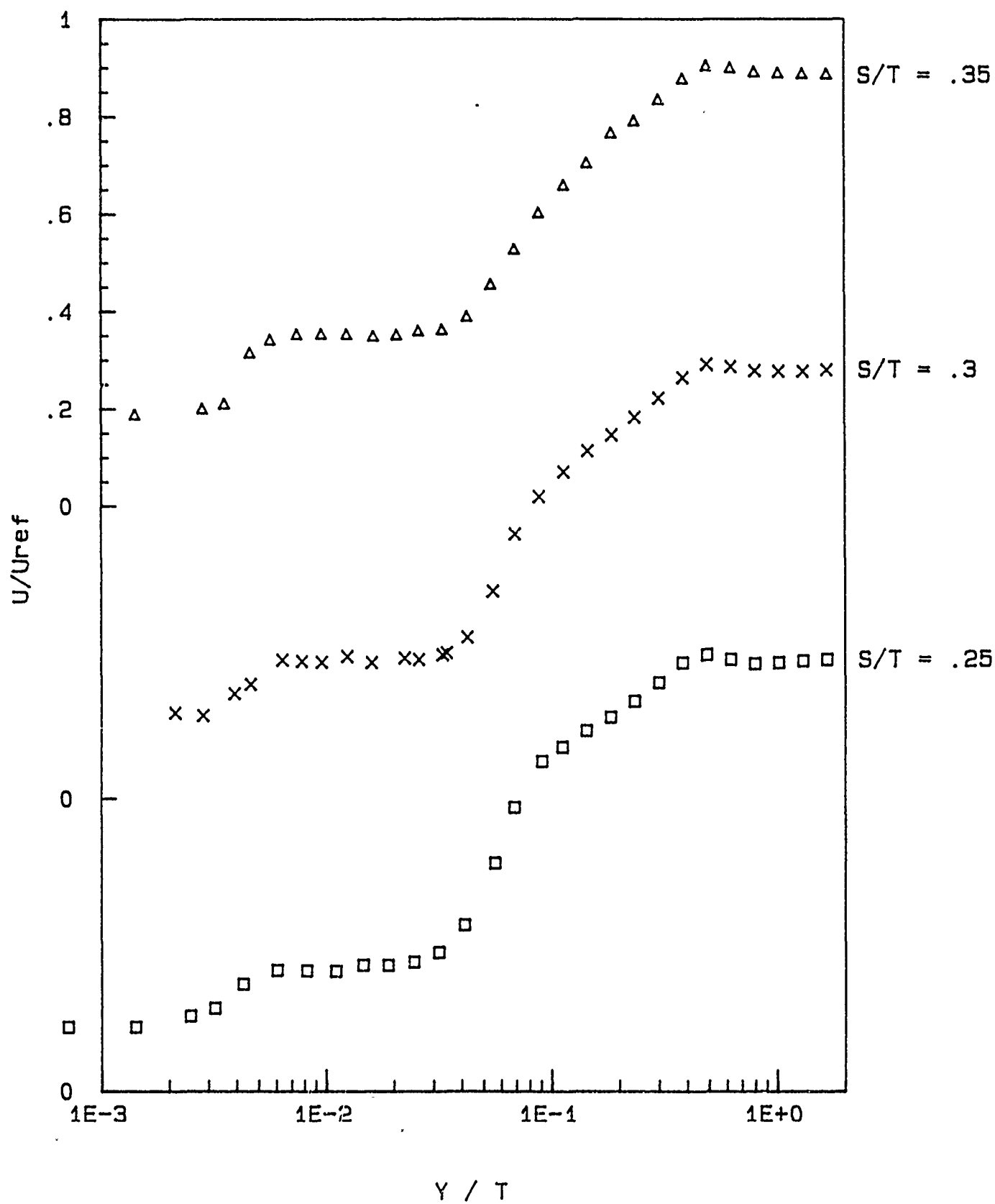


Figure F.2-1(b) Profiles of mean-velocity component U, plane 3.

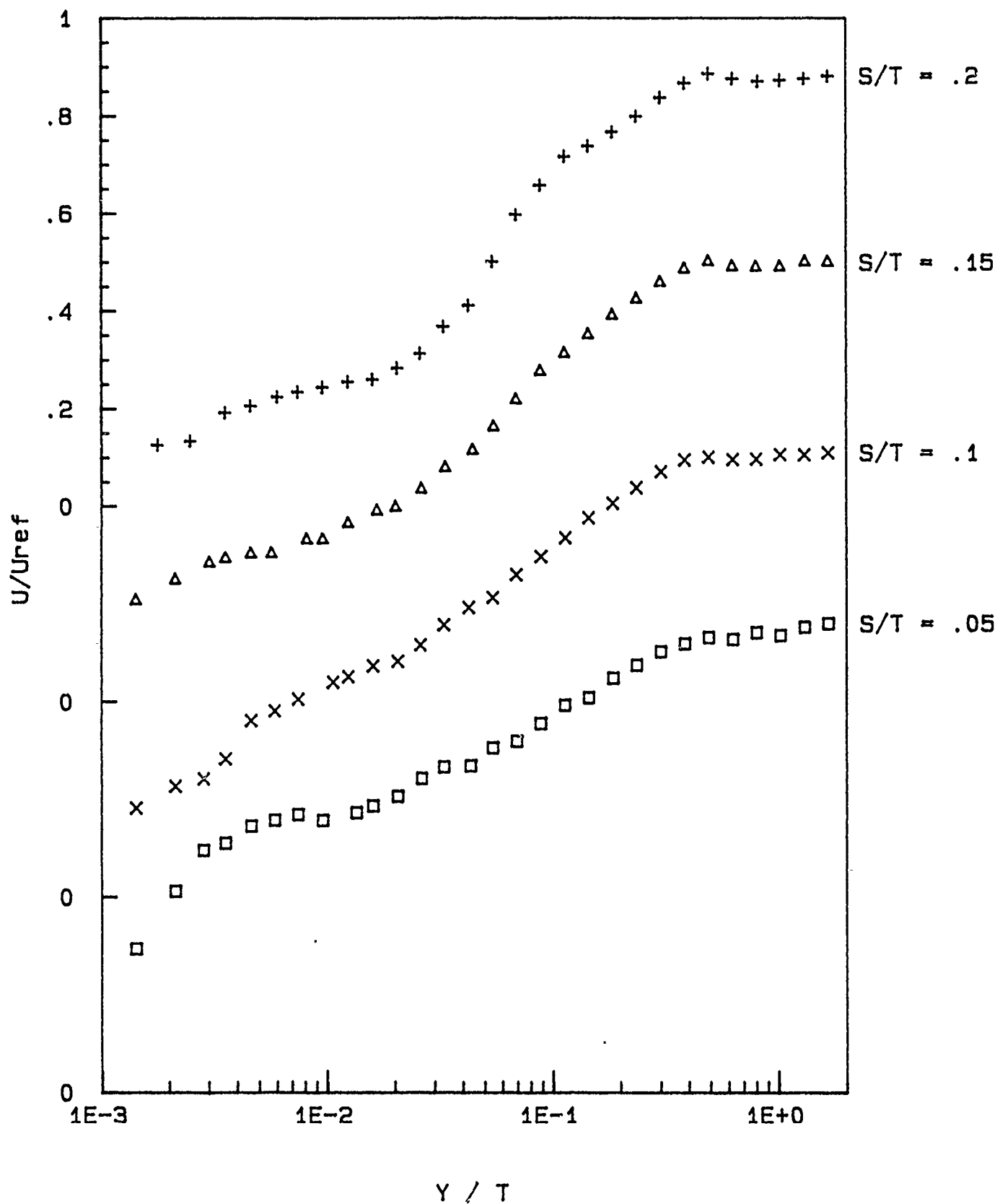


Figure F.2-1(c) Profiles of mean-velocity component U , plane 3.

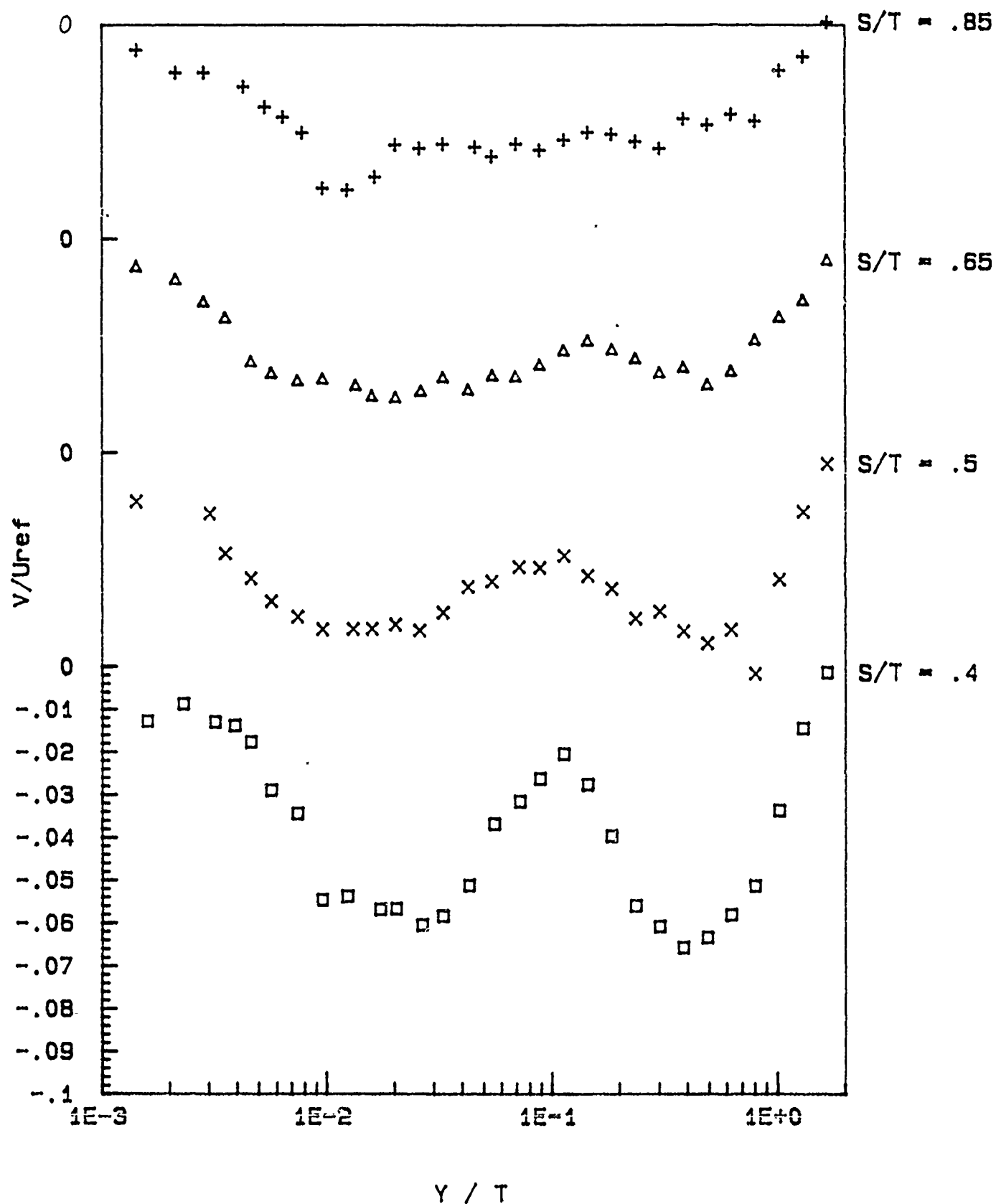


Figure F.2-2(a) Profiles of mean-velocity component V , plane 3.

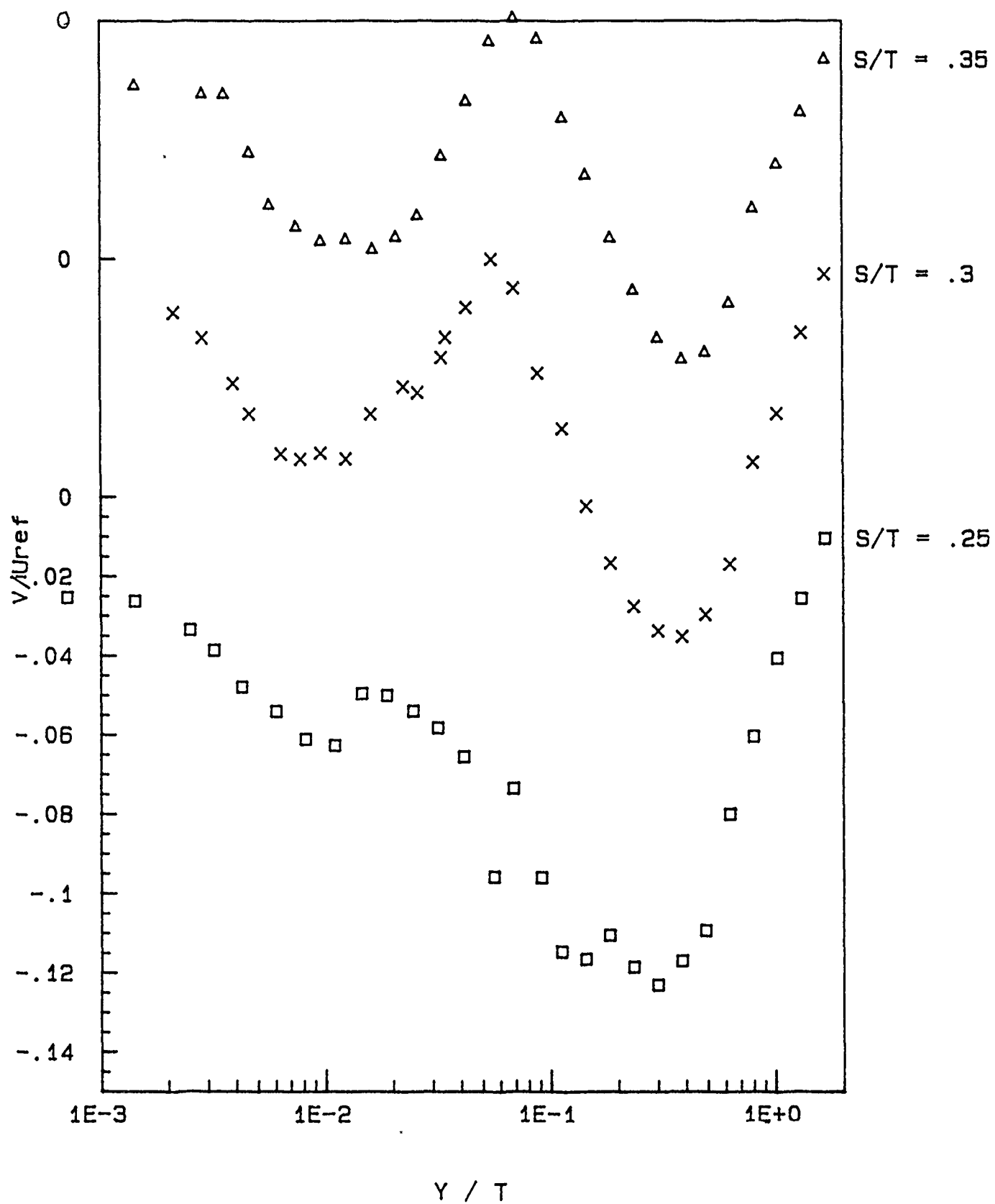


Figure F.2-2(b) Profiles of mean-velocity component V, plane 3.

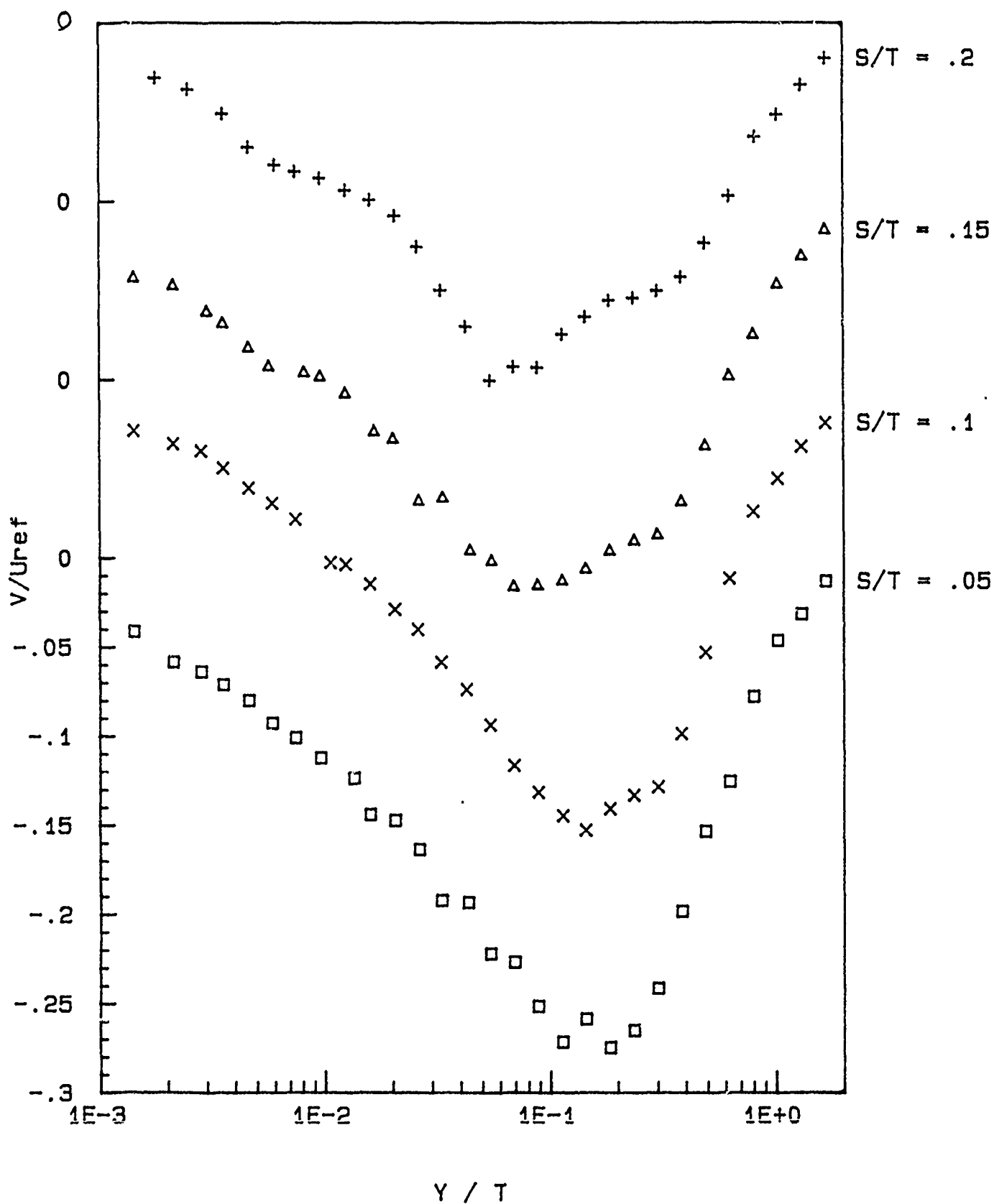


Figure F.2-2(c) Profiles of mean-velocity component V , plane 3.

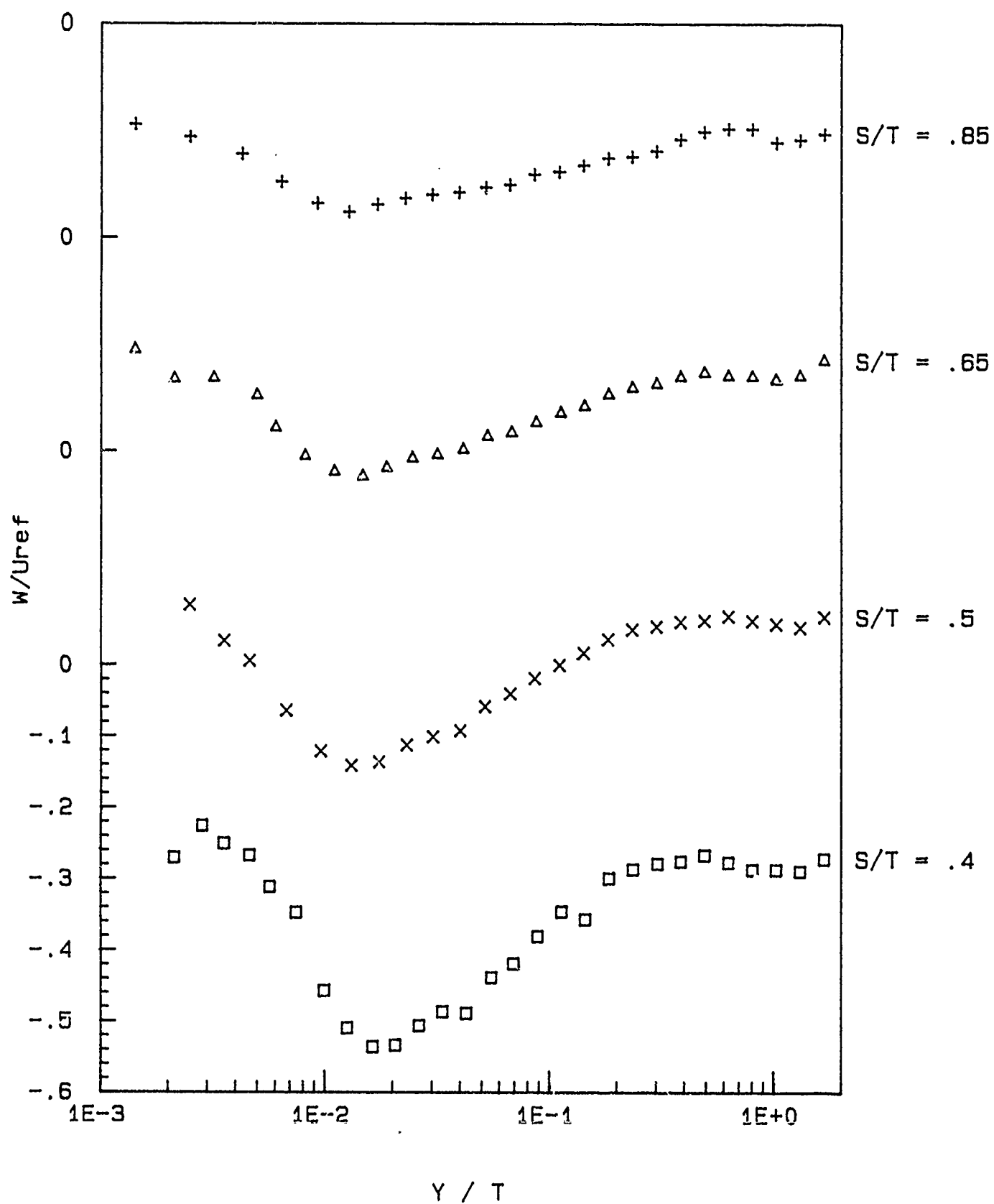


Figure F.2-3(a) Profiles of mean-velocity component W , plane 3.

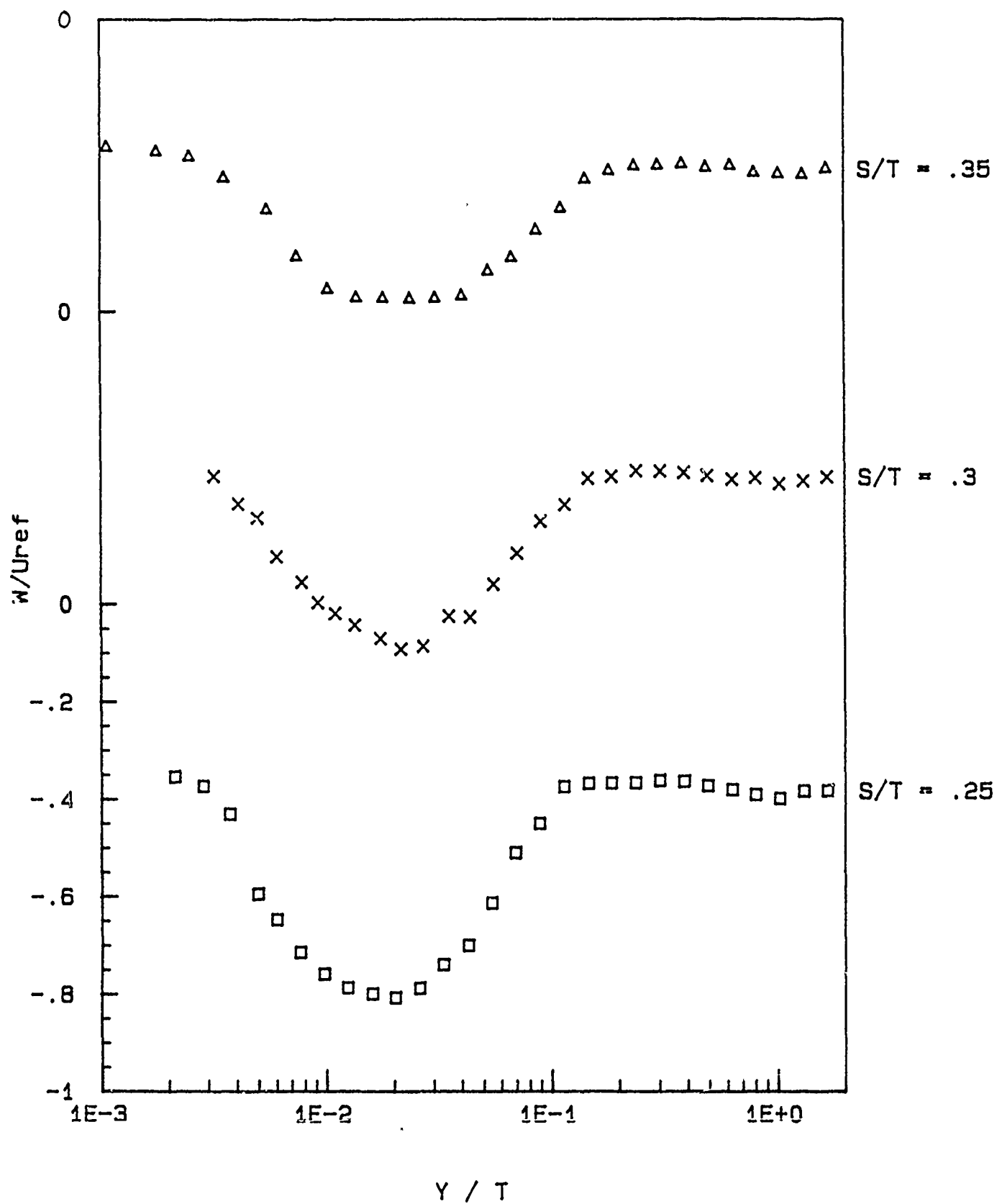


Figure F.2-3(b) Profiles of mean-velocity component W , plane 3.

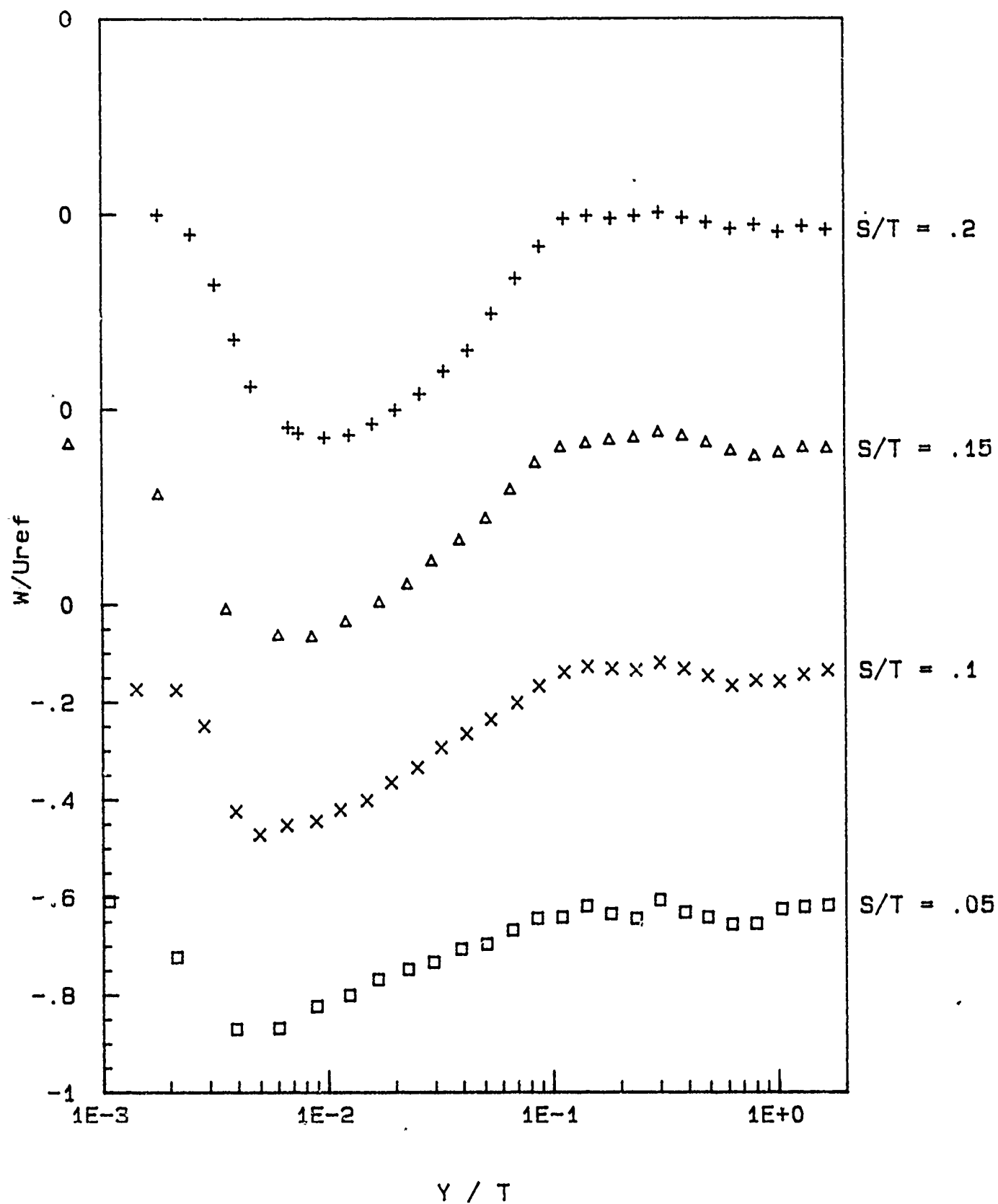


Figure F.2-3(c) Profiles of mean-velocity component W , plane 3.

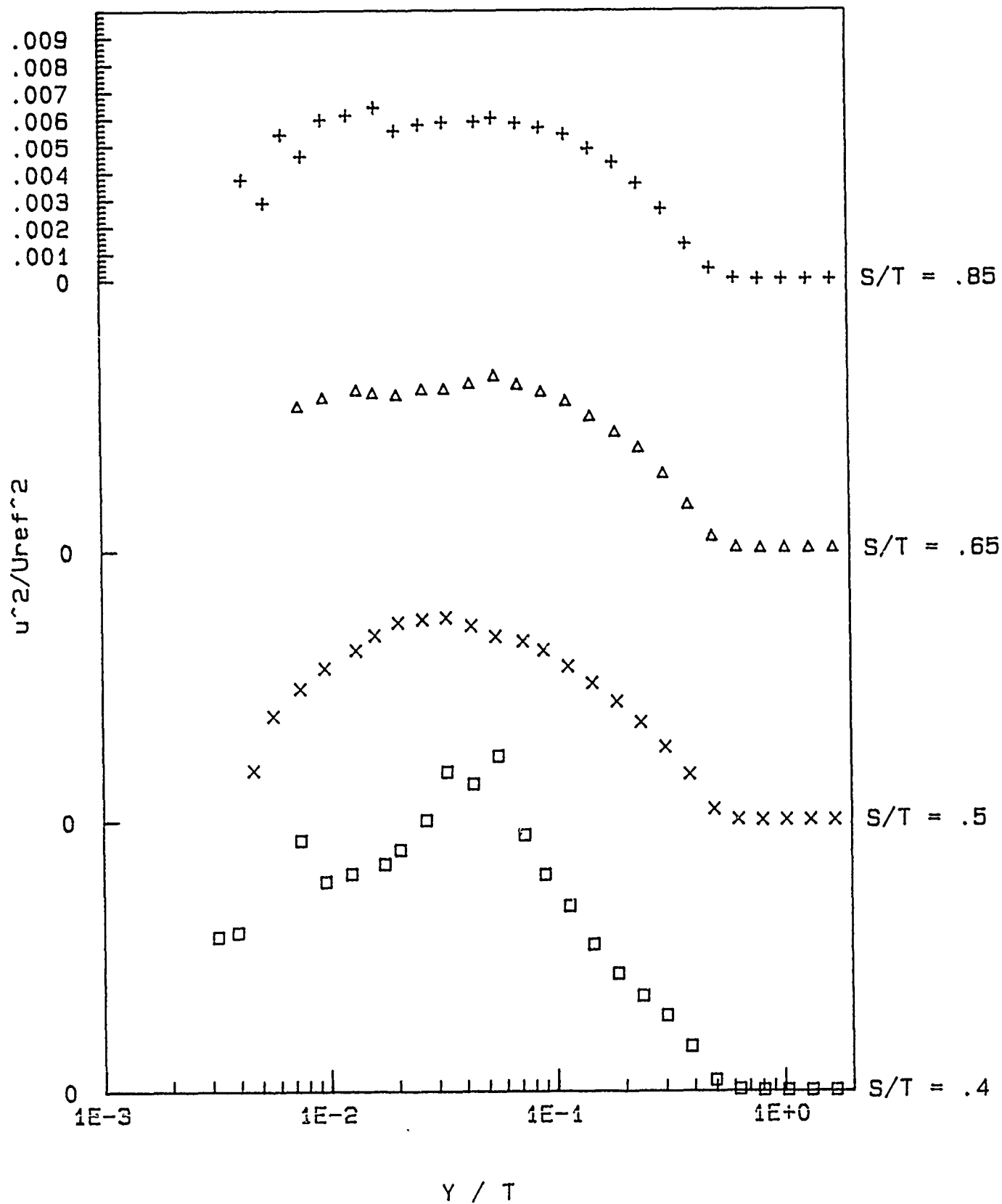


Figure F.2-4(a) Profiles of U-component of turbulence normal stress, plane 3.

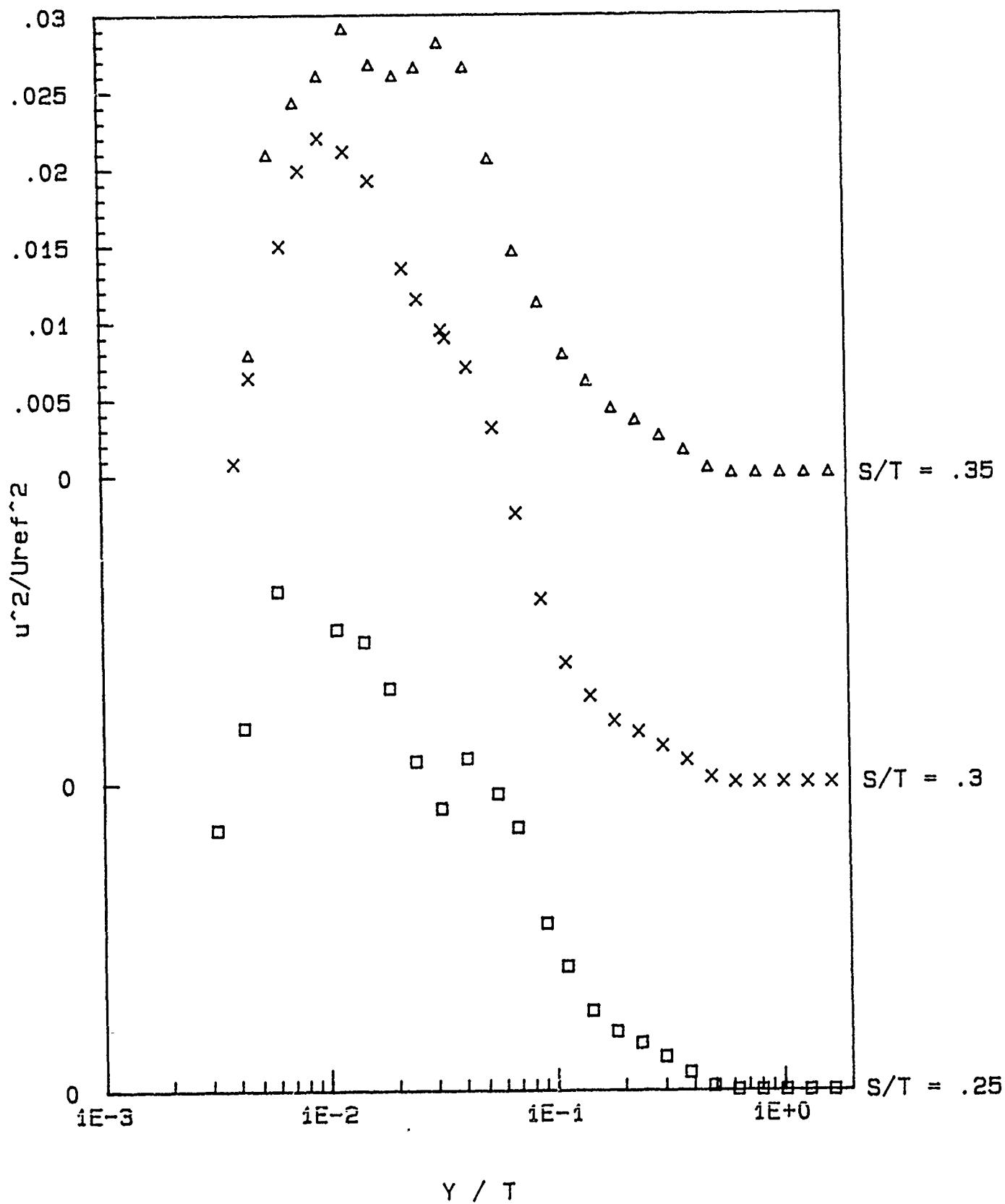


Figure F.2-4(b) Profiles of U-component of turbulence normal stress, plane 3.

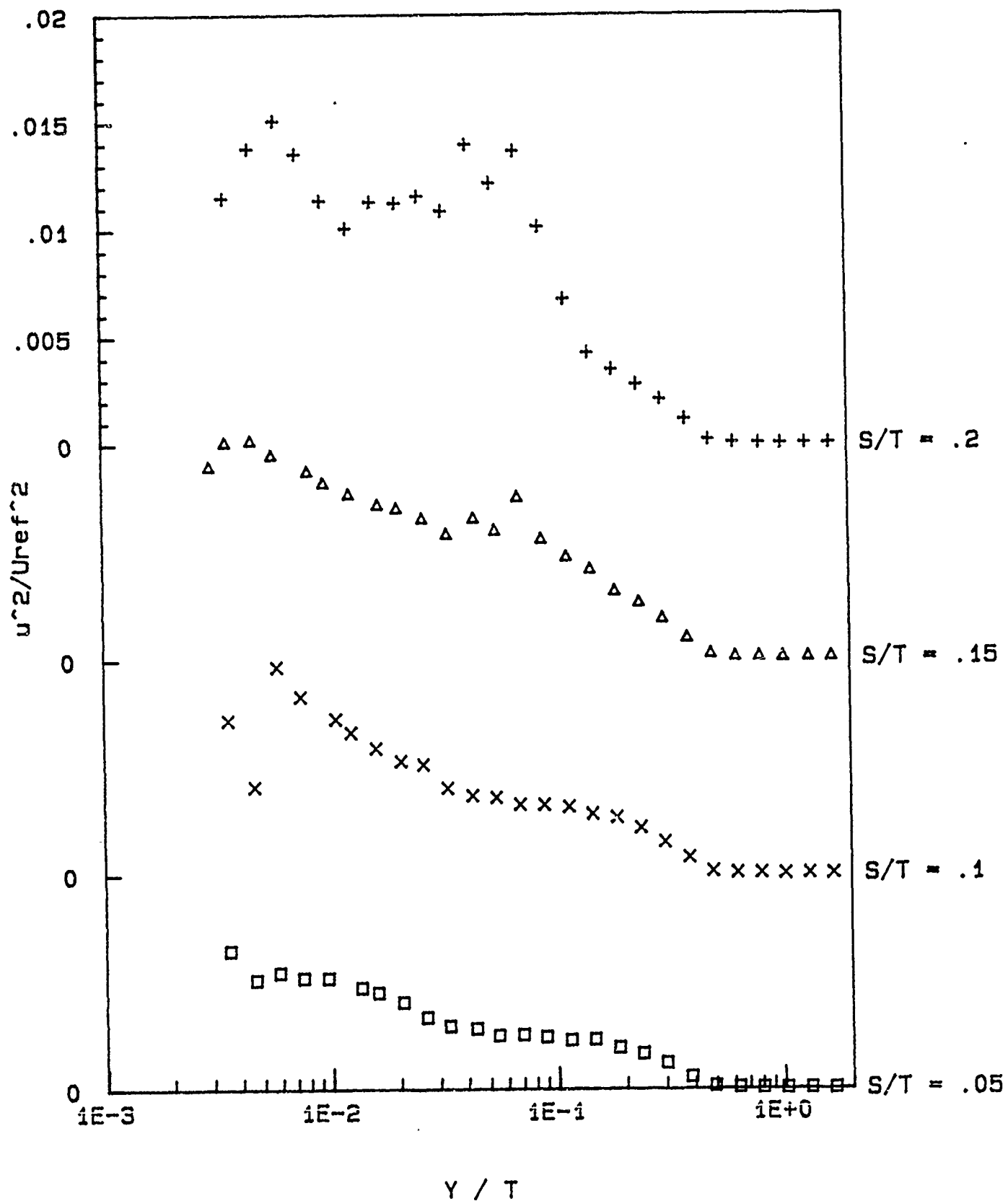


Figure F.2-4(c) Profiles of U-component of turbulence normal stress, plane 3.

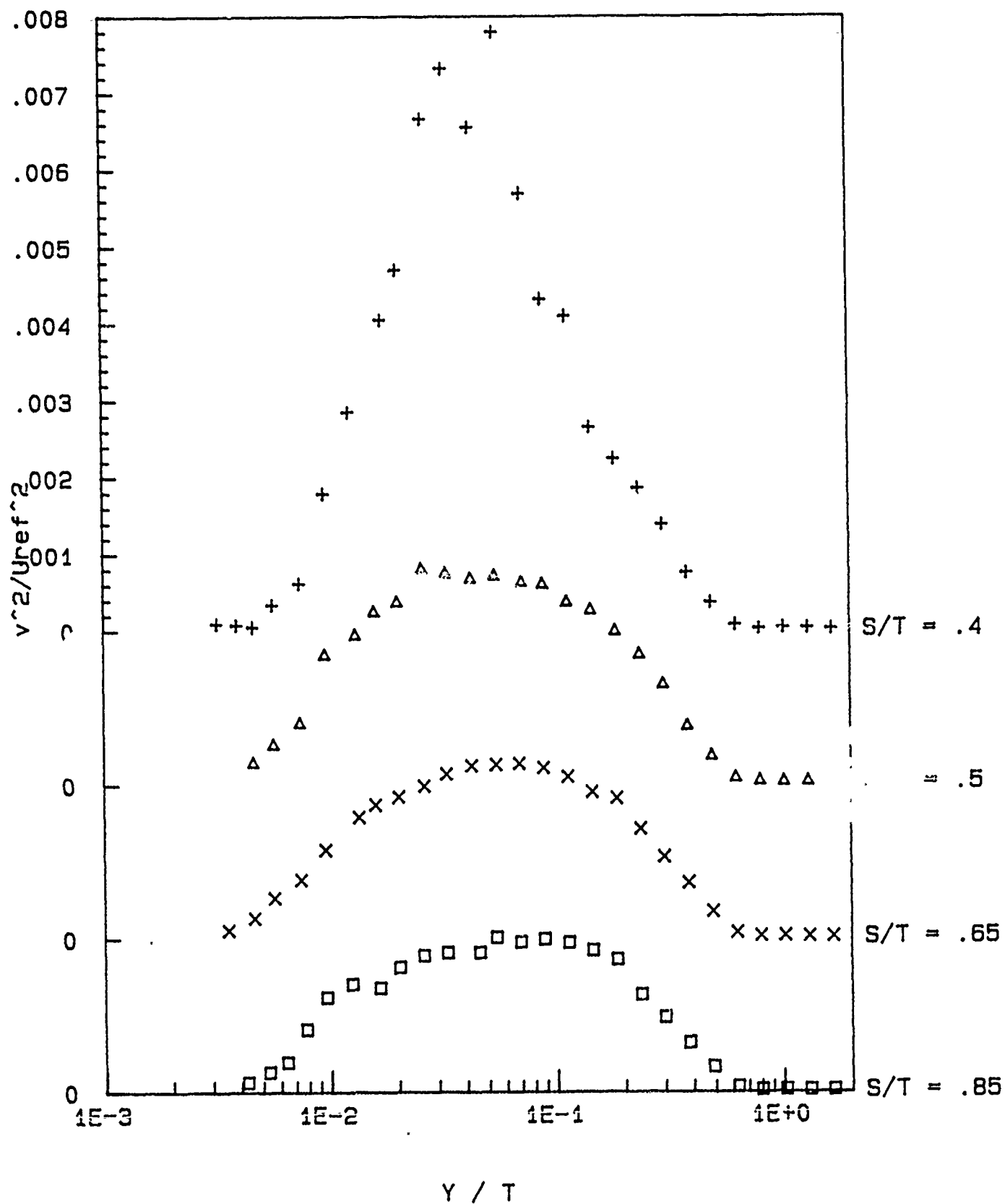


Figure F.2-5(a) Profiles of V-component of turbulence normal stress, plane 3.

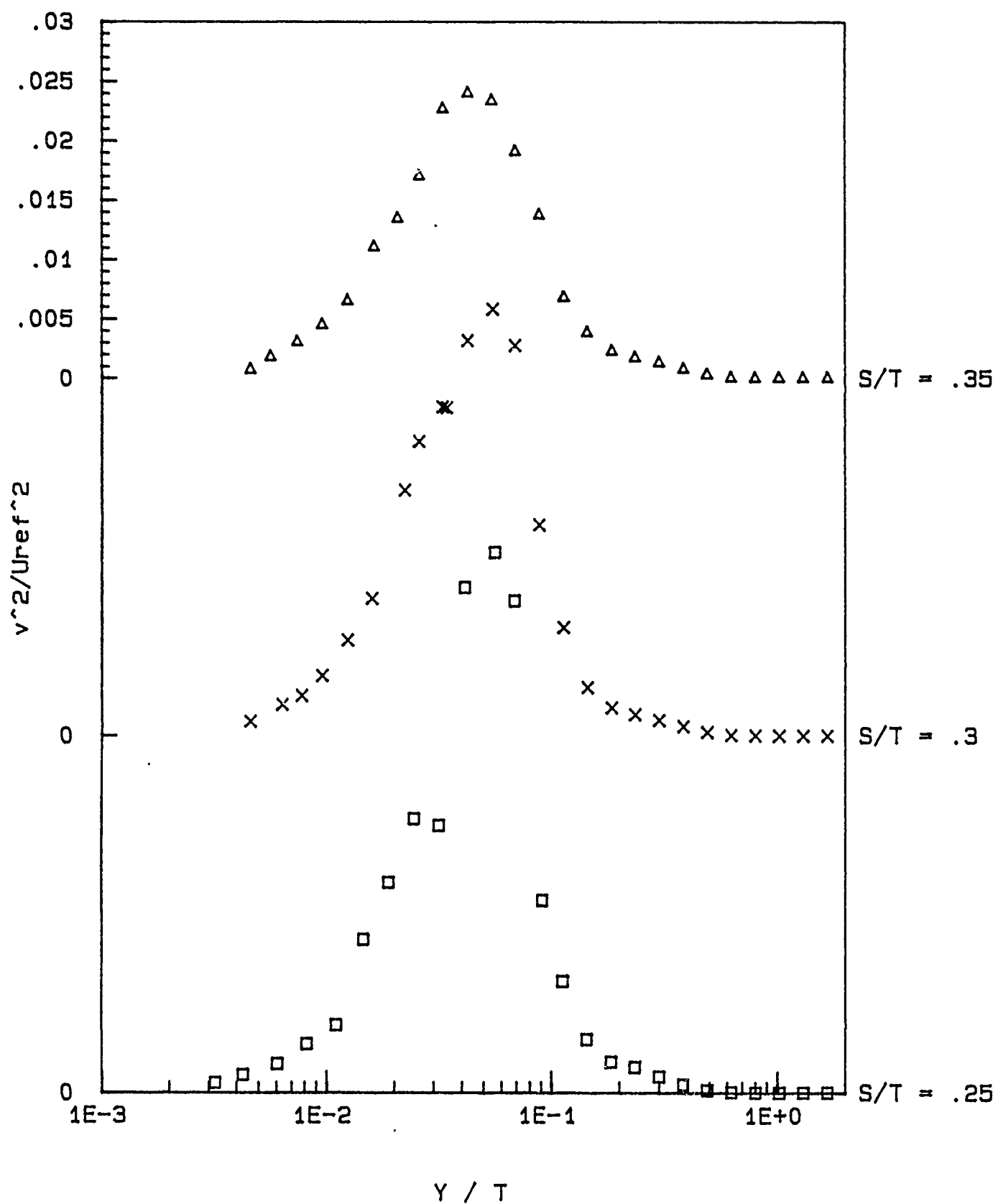


Figure F.2-5(b) Profiles of V-component of turbulence normal stress, plane 3.

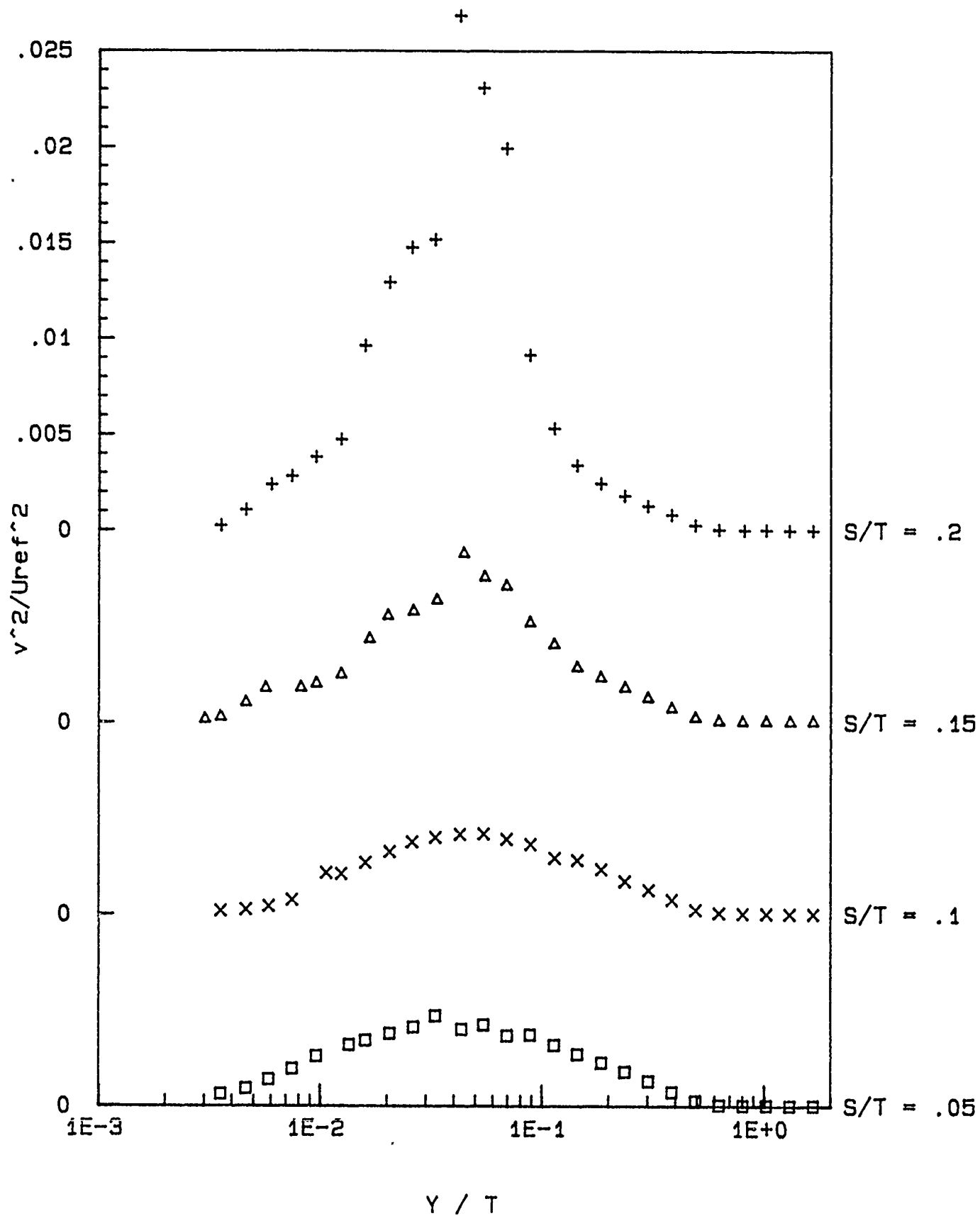


Figure F.2-5(c) Profiles of V-component of turbulence normal stress, plane 3.

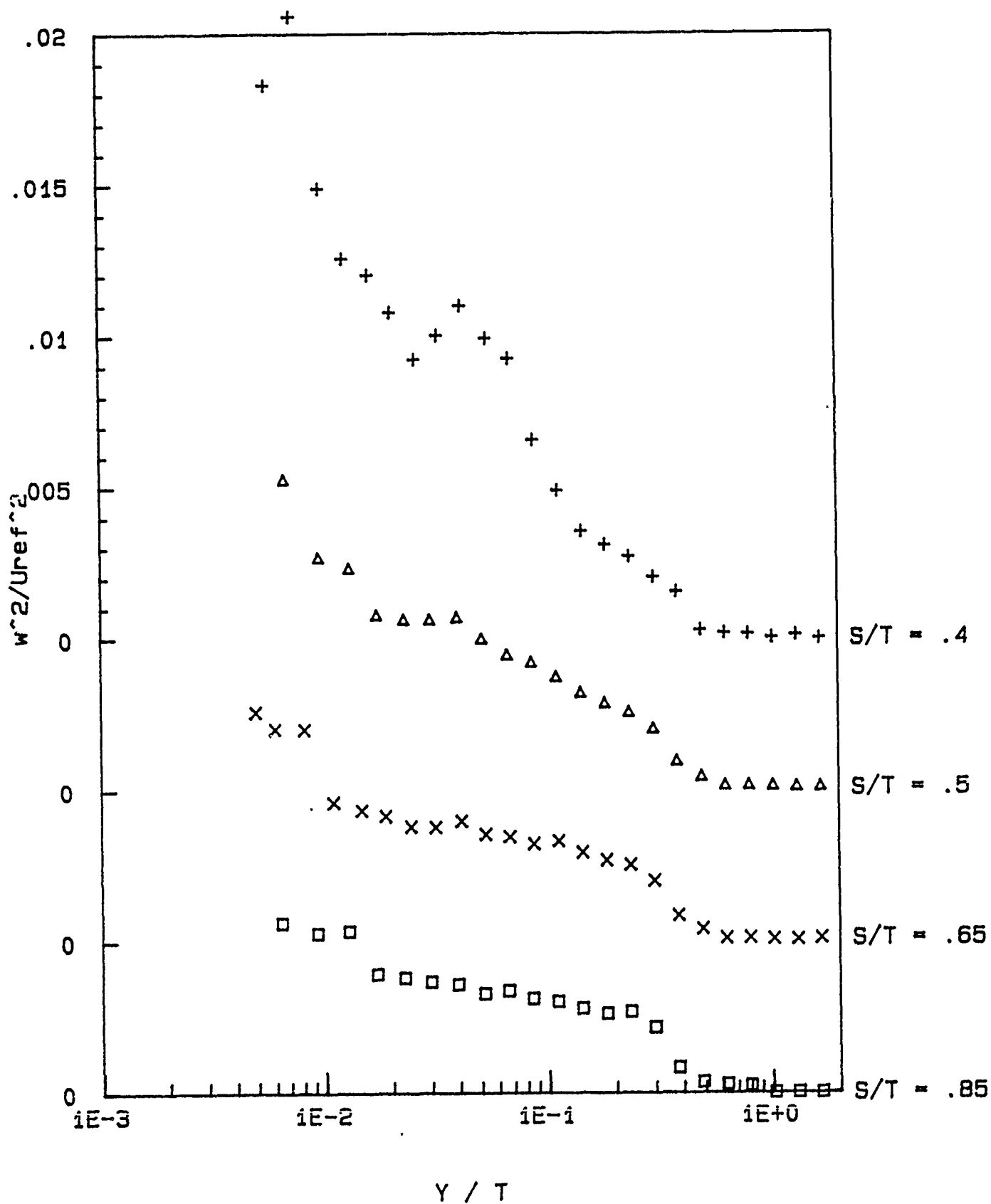


Figure F.2-6(a) Profiles of W-component of turbulence normal stress, plane 3.

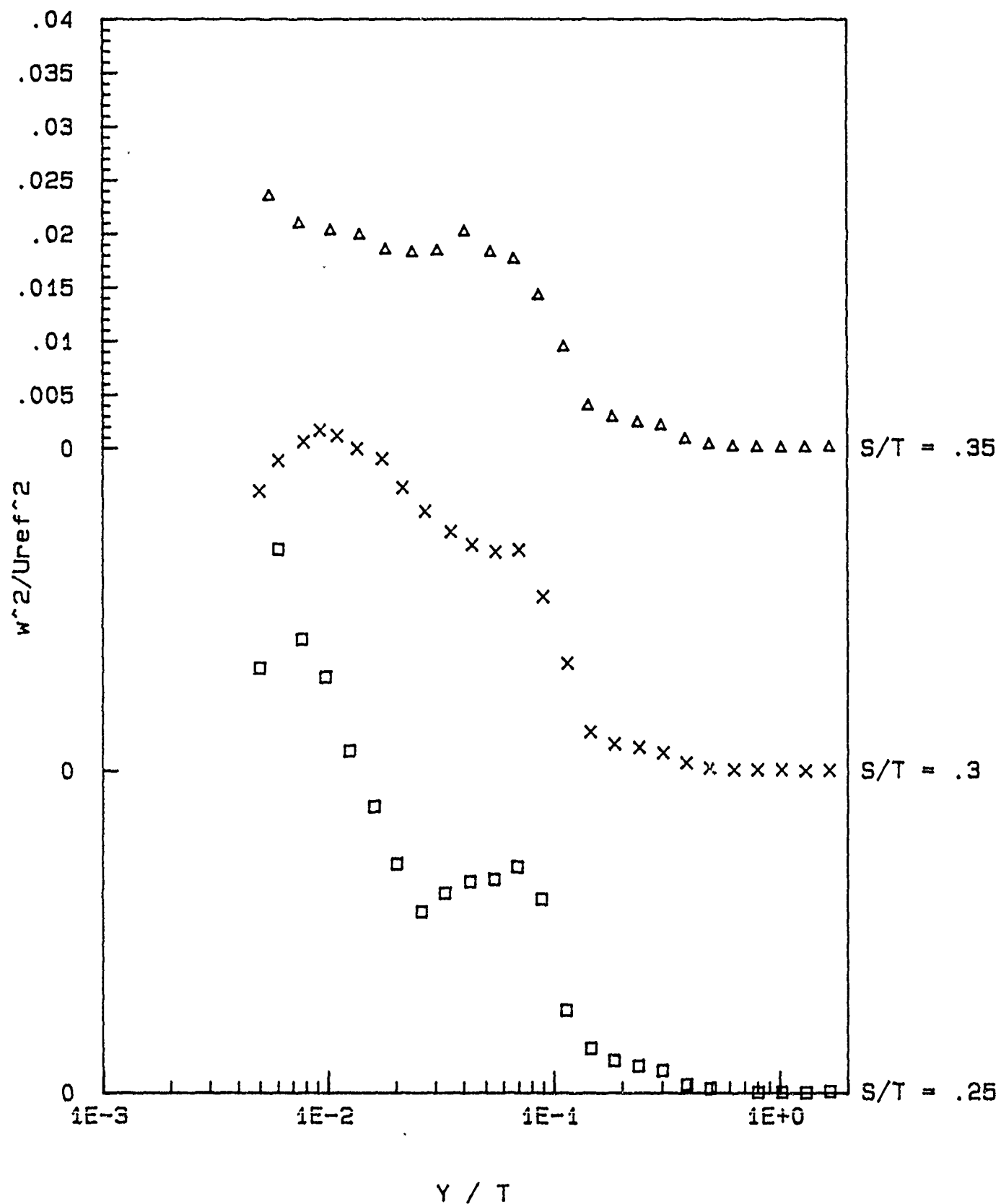


Figure F.2-6(b) Profiles of W-component of turbulence normal stress, plane 3.

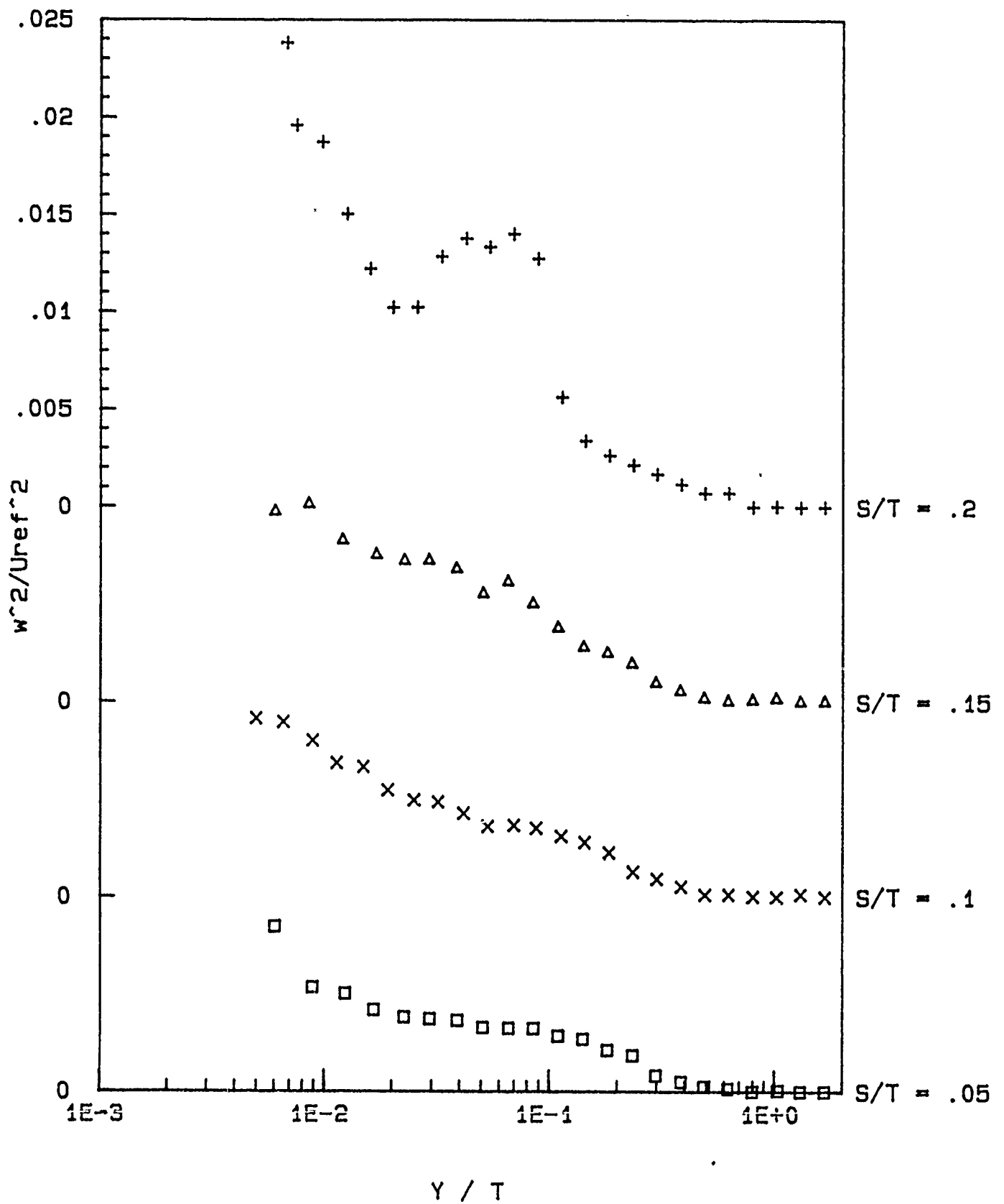


Figure F.2-6(c) Profiles of W-component of turbulence normal stress, plane 3.

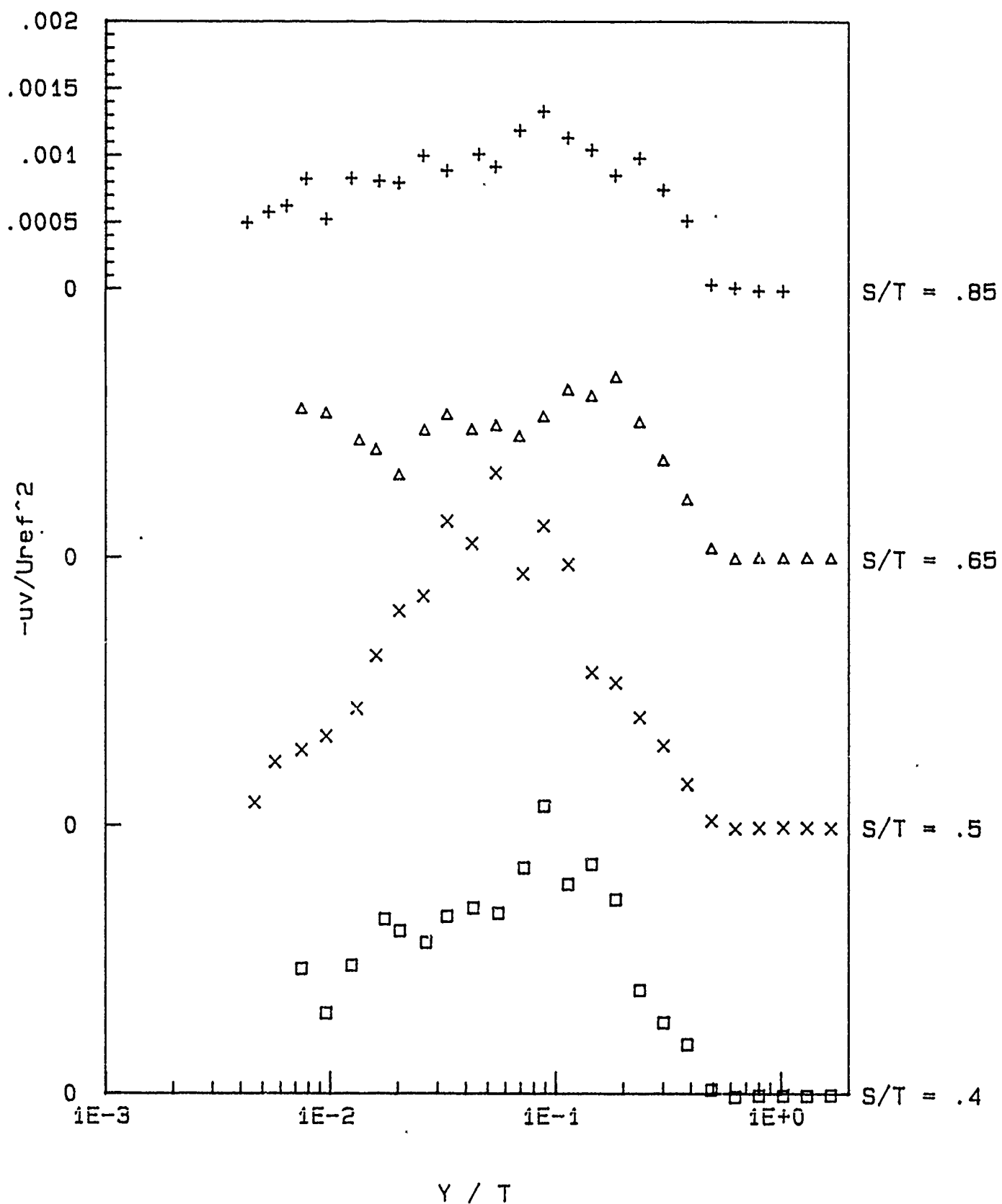


Figure F.2-7(a) Profiles of UV Reynolds shear stress, plane 3.

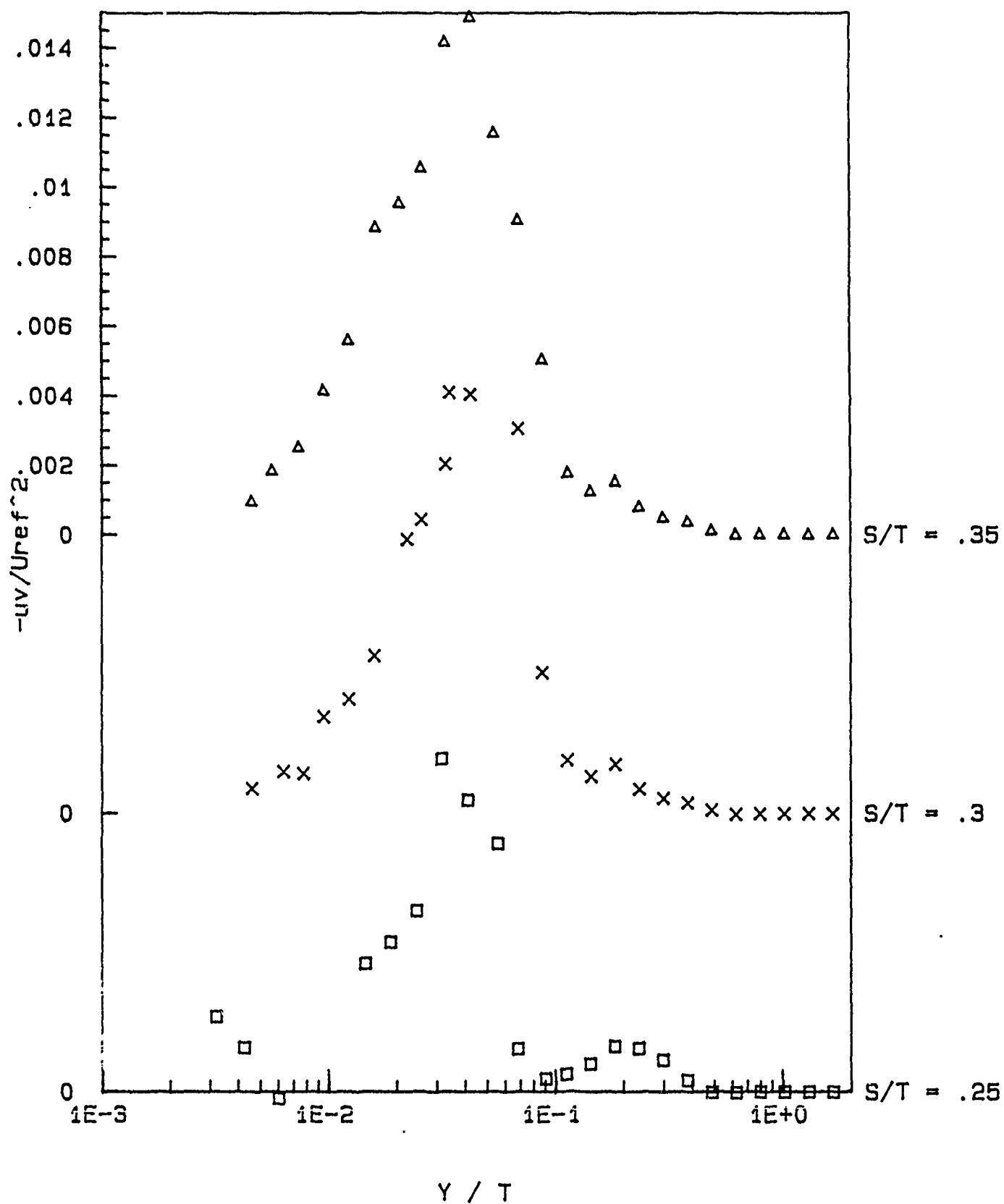


Figure F.2-7(b) Profiles of UV Reynolds shear stress, plane 3.

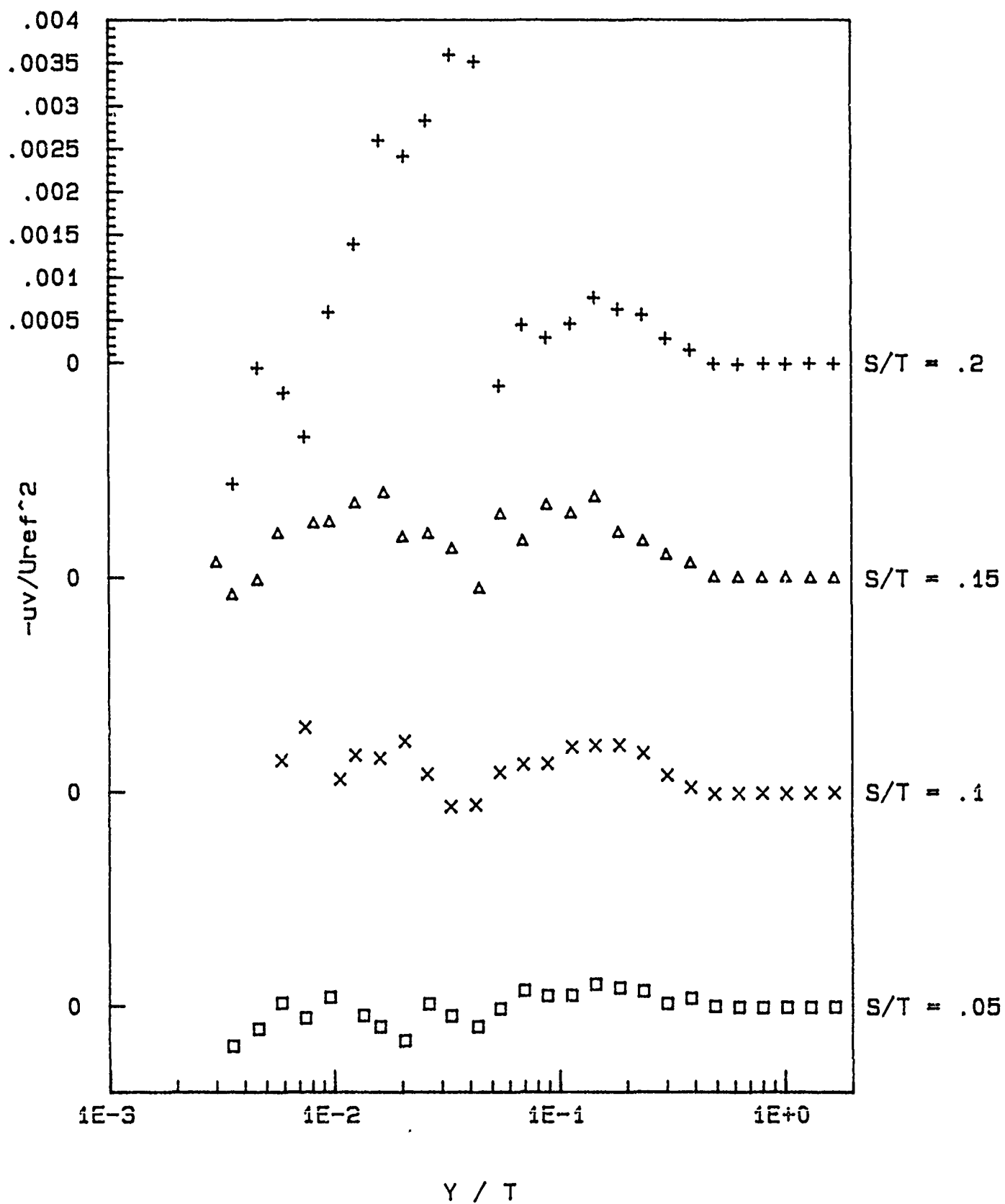


Figure F.2-7(c) Profiles of UV Reynolds shear stress, plane 3.

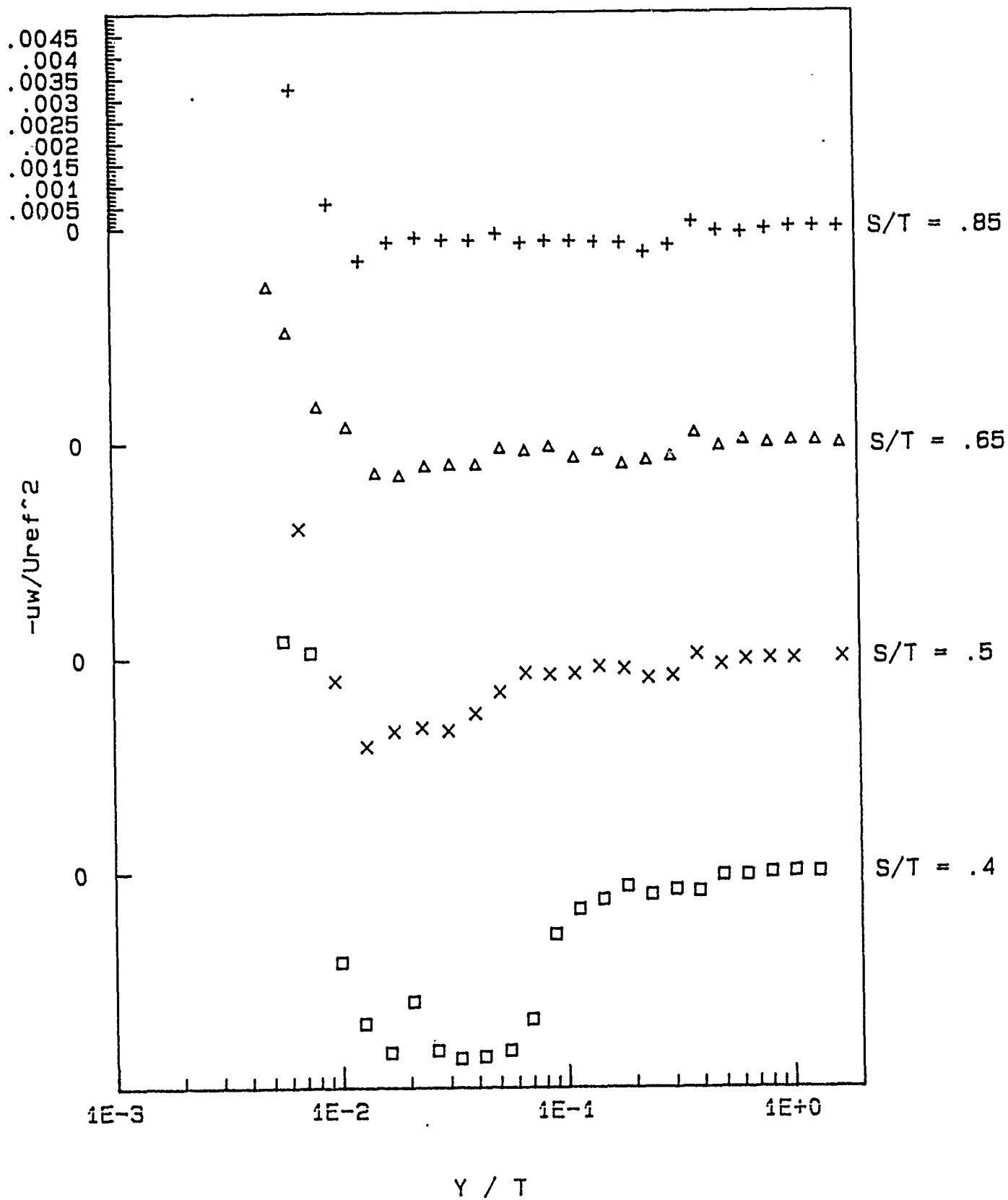


Figure F.2-8(a) Profiles of UW Reynolds shear stress, plane 3.

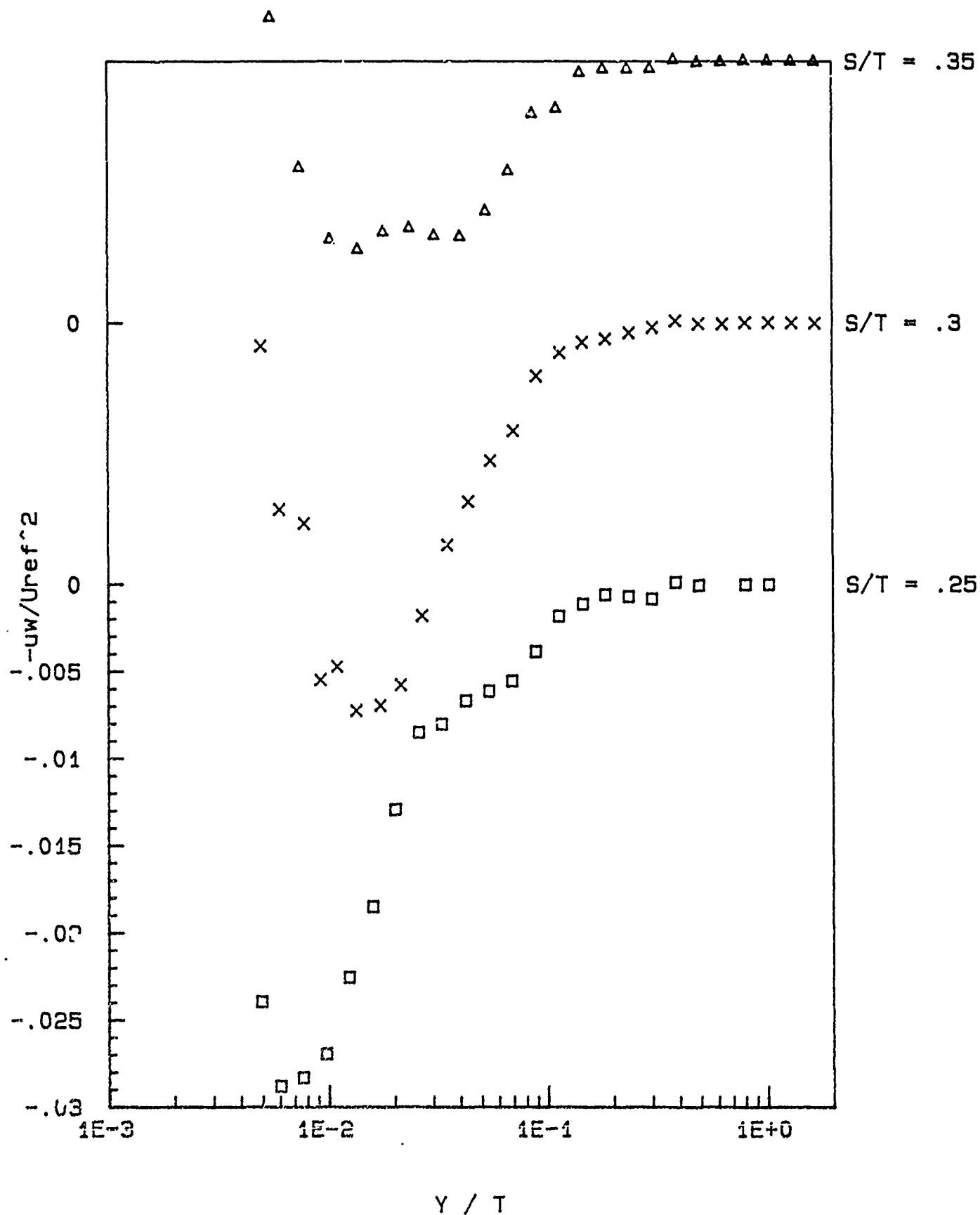


Figure F.2-8(b) Profiles of UW Reynolds shear stress, plane 3.

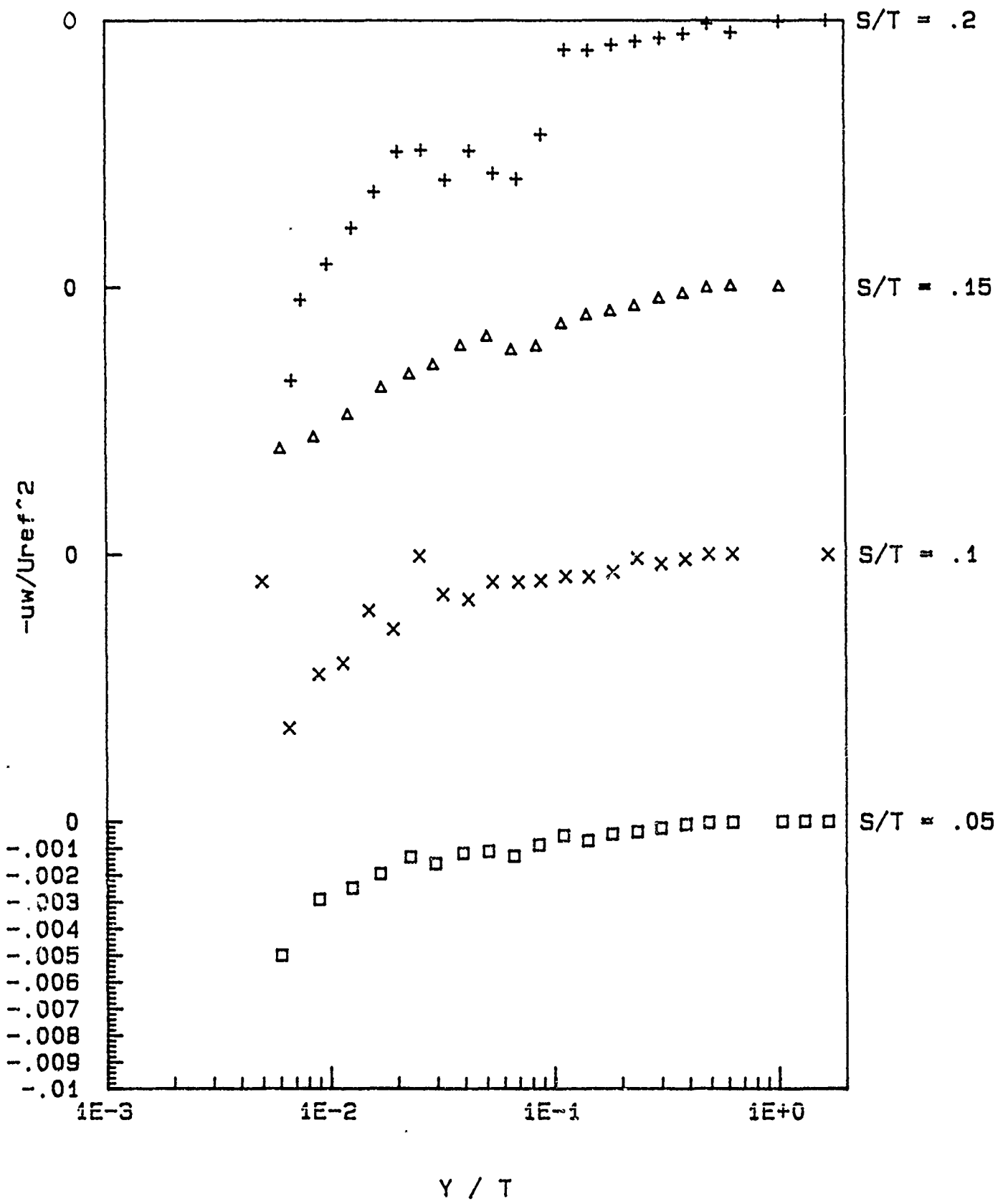


Figure F.2-8(c) Profiles of UW Reynolds shear stress, plane 3.

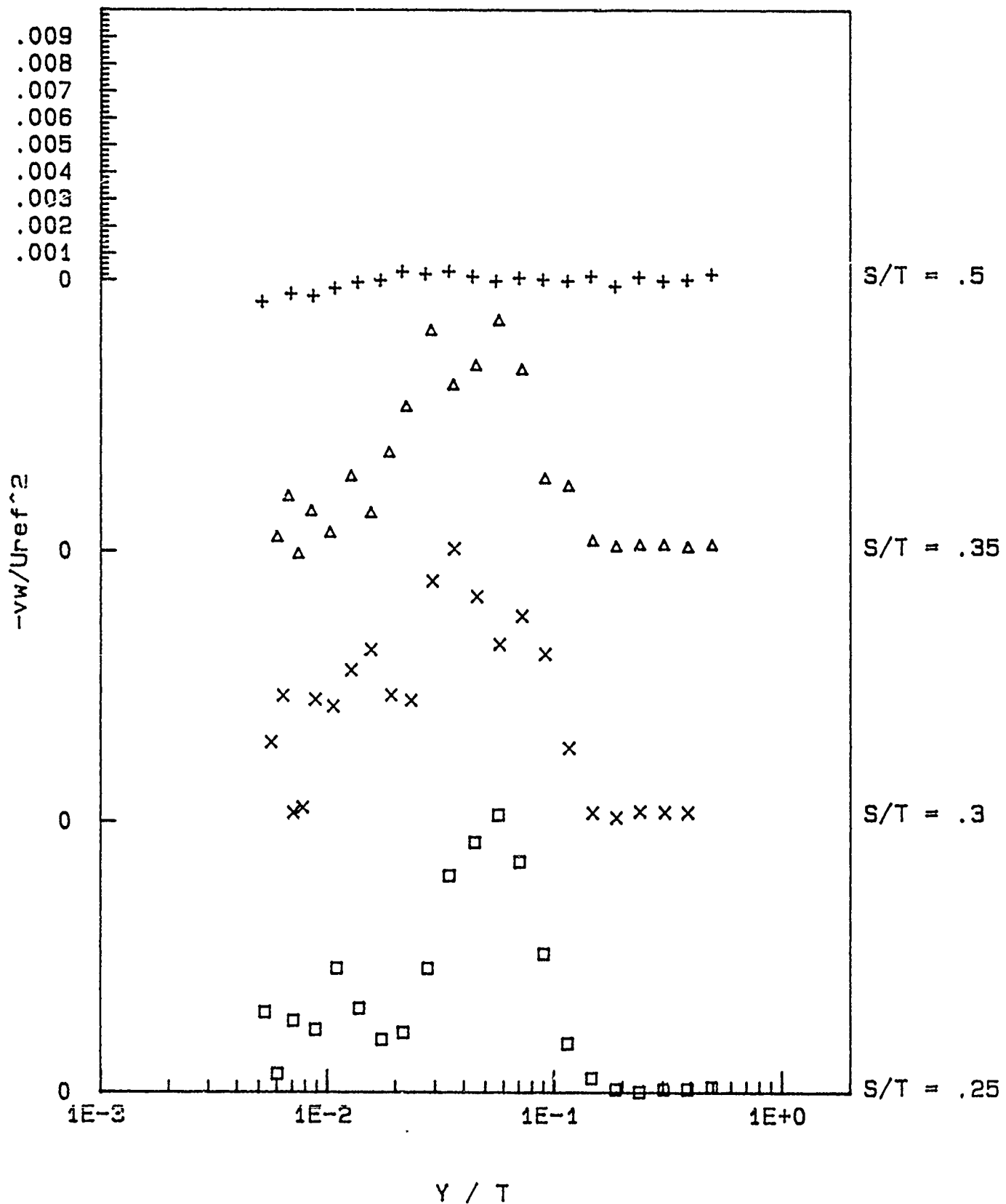


Figure F.2-9(a) Profiles of VW Reynolds shear stress, plane 3.

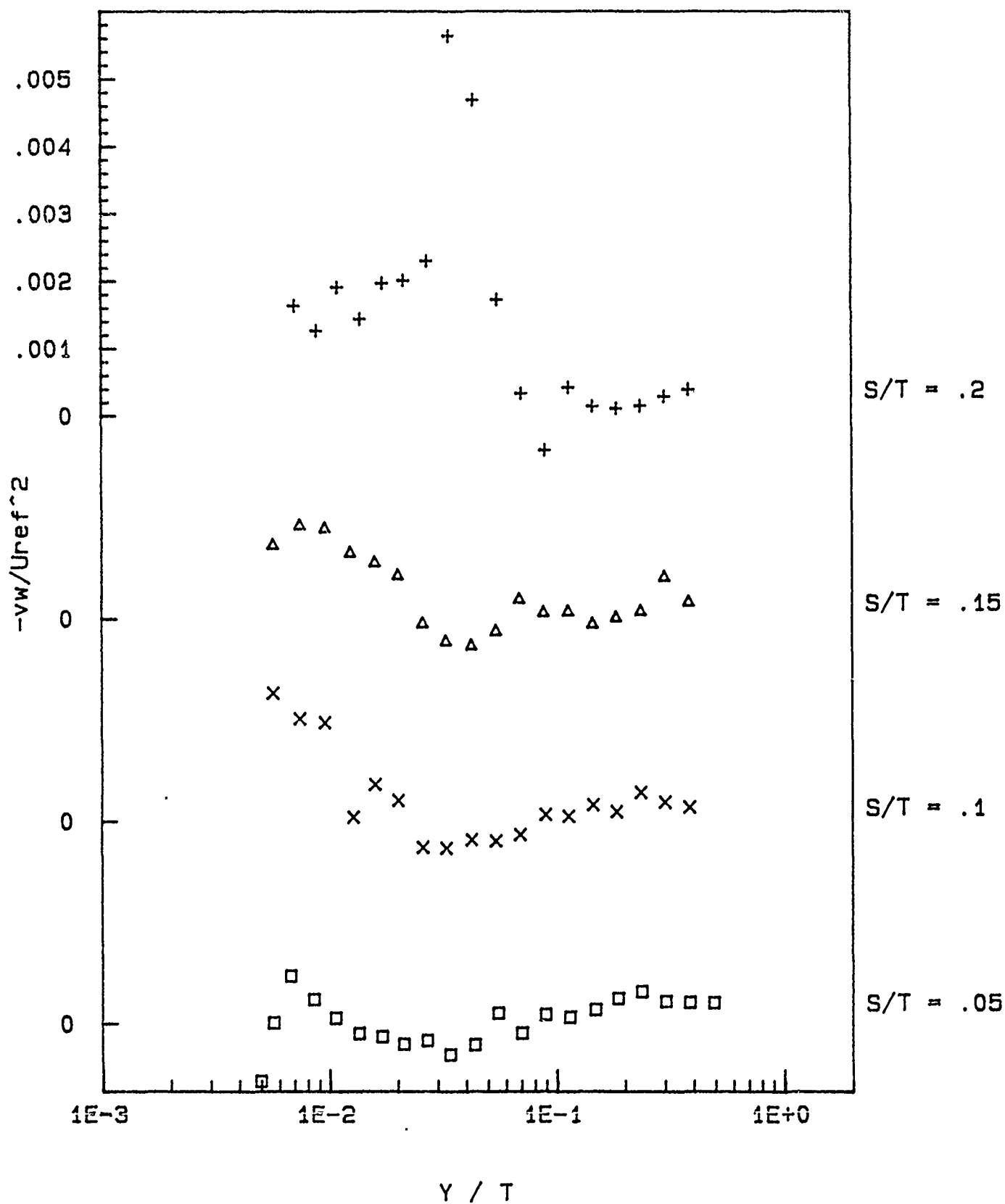


Figure F.2-9(b) Profiles of VW Reynolds shear stress, plane 3.

File E284770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.123061

viscosity (meters squared per second) = 1.626671E-05

Atmospheric pressure (Pascals) = 95450

Velocity of undisturbed free stream (Uref, in m/s) = 27.51973

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.094839E-03

Estimated momentum thickness Reynolds number = 6927.575

Location of traverse; X/T = -.4578 Z/T = -.8872 (Plane 3, S/T = 0.85)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.9259E-01				-5.8386E-03				
2.1246E-03	1.8615E-01				-1.1222E-02				
2.8329E-03	2.0177E-01				-1.1188E-02				
4.2493E-03	2.7998E-01	3.7490E-03			-1.4442E-02	1.3055E-04	-5.6999E-01	2.1632E+00	-4.9789E-04
5.3116E-03	3.5218E-01	2.8891E-03			-1.9172E-02	2.6548E-04	-2.7291E-01	1.6378E+00	-5.7589E-04
6.3739E-03	3.8655E-01	5.4142E-03			-2.1544E-02	3.9215E-04	-1.1182E-01	7.5077E-01	-6.2425E-04
7.7904E-03	4.4522E-01	4.6219E-03			-2.5131E-02	8.2158E-04	3.6506E-02	8.2196E-01	-8.2416E-04
9.5609E-03	4.7817E-01	5.9726E-03	8.7504E-02	6.6835E-02	-3.8194E-02	1.2357E-03	-1.2344E-01	7.8407E-01	-5.2399E-04
1.2394E-02	4.8736E-01	6.1367E-03	5.7872E-02	-1.0136E-01	-3.8578E-02	1.4083E-03	-7.4593E-02	3.1522E-01	-8.2923E-04
1.6466E-02	5.1823E-01	6.4185E-03	8.4497E-02	-3.1535E-01	-3.5493E-02	1.3597E-03	1.9624E-01	7.9267E-02	-8.0744E-04
2.0184E-02	5.0715E-01	5.5573E-03	4.2078E-02	-3.8353E-01	-2.8016E-02	1.6248E-03	-8.1779E-02	1.1556E-01	-7.9493E-04
2.5850E-02	5.2262E-01	5.7749E-03	5.8902E-02	-2.8152E-01	-2.8795E-02	1.7800E-03	2.6685E-03	1.5522E-01	-9.9631E-04
3.2932E-02	5.4528E-01	5.8667E-03	8.2867E-02	-3.2095E-01	-2.7826E-02	1.8177E-03	2.3180E-02	1.7067E-01	-8.8576E-04
4.5680E-02	5.7623E-01	5.8890E-03	-1.6680E-02	-3.4757E-01	-2.8473E-02	1.8154E-03	1.1508E-01	8.8592E-02	-1.0084E-03
5.4178E-02	5.9066E-01	6.0331E-03	-5.2649E-03	-3.2185E-01	-3.0668E-02	2.0161E-03	-6.6510E-02	1.6164E-01	-9.1482E-04
6.9405E-02	6.1719E-01	5.8317E-03	-7.8780E-02	-3.3292E-01	-2.7772E-02	1.9525E-03	4.3199E-02	4.4129E-02	-1.1869E-03
8.8173E-02	6.4259E-01	5.6706E-03	-1.0366E-01	-3.5462E-01	-2.9195E-02	1.9916E-03	3.3903E-02	7.2253E-02	-1.3280E-03
1.1296E-01	6.7201E-01	5.4193E-03	-1.5849E-01	-2.8784E-01	-2.6848E-02	1.9448E-03	6.7069E-02	3.8141E-02	-1.1320E-03
1.4412E-01	7.1080E-01	4.8700E-03	-2.1737E-01	-2.0954E-01	-2.5050E-02	1.8458E-03	1.2408E-01	-2.6219E-03	-1.0408E-03
1.8449E-01	7.4752E-01	4.3685E-03	-2.4890E-01	-2.2435E-01	-2.5463E-02	1.7240E-03	1.2124E-01	4.5715E-02	-8.5028E-04
2.3513E-01	7.9319E-01	3.5748E-03	-3.6837E-01	-9.6687E-02	-2.7205E-02	1.2662E-03	2.6041E-01	9.8629E-03	-9.7932E-04
3.0028E-01	8.4737E-01	2.6378E-03	-4.2942E-01	1.0837E-01	-2.8883E-02	9.7080E-04	3.1528E-01	1.3278E-01	-7.4228E-04
3.8350E-01	8.8909E-01	1.3372E-03	-6.4871E-01	1.5770E-01	-2.1894E-02	6.4018E-04	4.4234E-01	5.3634E-01	-5.1189E-04
4.8973E-01	9.3254E-01	4.3030E-04	-9.4296E-01	1.3751E+00	-2.3354E-02	3.2500E-04	3.6470E-01	6.3664E-01	-3.2826E-05
6.2571E-01	9.3793E-01	5.9050E-05	-2.1258E-02	-2.8595E-02	-2.0816E-02	6.3751E-05	2.3182E-01	6.7031E-02	-9.3658E-06
7.9887E-01	9.3740E-01	2.9397E-05	-2.2625E-01	-2.0731E-01	-2.2400E-02	2.5954E-05	7.0711E-02	-3.2887E-01	1.1181E-05
1.0202E+00	9.3838E-01	3.0610E-05	-1.9982E-01	-8.5719E-02	-1.0664E-02	3.0548E-05	-1.8086E-02	-1.9143E-01	1.3850E-05
1.3045E+00	9.3625E-01	2.5374E-05	-2.3823E-01	4.0818E-02	-7.4376E-03	2.8052E-05	-1.6168E-02	-2.1024E-01	
1.6636E+00	9.3523E-01	2.0856E-05	-2.3994E-01	3.4443E-02	6.7737E-04	2.6635E-05	-2.3650E-02	-1.8645E-01	

Table F.2-1 Velocity measurements made at S/T = 0.85 with the UV system of the laser anemometer, plane 3

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Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.9

density (kilograms per meter cubed) = 1.105698

viscosity (meters squared per second) = 1.656088E-05

Atmospheric pressure (Pascals) = 94260

Velocity of undisturbed free stream (Uref, in m/s) = 27.52845

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09458E-03

Estimated momentum thickness Reynolds number = 6806.245

Location of traverse; X/T = -.308 Z/T = -.7547 (Plane 3, S/T = 0.65)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.2958E-01				-6.8848E-03				
2.1246E-03	1.5471E-01				-9.8645E-03				
2.8329E-03	1.6618E-01				-1.5122E-02				
3.5411E-03	1.9898E-01				-1.8859E-02	1.1608E-04			
4.6034E-03	2.6479E-01				-2.9086E-02	2.7482E-04			
5.6657E-03	3.4222E-01				-3.1787E-02	5.3370E-04	-8.3775E-02	7.0916E-01	
7.4363E-03	3.9138E-01	5.2986E-03	2.1058E-01	7.8199E-01	-3.3515E-02	7.7137E-04	-4.6170E-02	2.9859E-01	-1.0962E-03
9.5609E-03	4.2833E-01	5.6203E-03	5.3298E-02	3.3358E-02	-3.3103E-02	1.1581E-03	8.9992E-02	2.3830E-01	-1.0647E-03
1.3456E-02	4.4643E-01	5.8988E-03	3.6919E-02	-1.7052E-01	-3.4666E-02	1.5830E-03	-2.3257E-02	3.3758E-01	-8.6061E-04
1.5935E-02	4.6410E-01	5.7926E-03	9.4466E-02	-1.6960E-01	-3.7098E-02	1.7460E-03	-9.2589E-02	4.0756E-01	-7.8902E-04
2.0184E-02	4.7690E-01	5.7166E-03	4.5301E-02	-2.2028E-01	-3.7518E-02	1.8456E-03	-6.1279E-02	2.8926E-01	-6.0153E-04
2.6204E-02	4.9579E-01	5.9222E-03	4.8185E-02	-2.3778E-01	-3.5964E-02	1.9889E-03	-9.0202E-02	2.4315E-01	-9.3673E-04
3.2932E-02	5.1295E-01	5.9411E-03	3.1094E-03	-2.5671E-01	-3.2757E-02	2.1431E-03	-1.6184E-01	2.6767E-01	-1.0531E-03
4.2493E-02	5.4420E-01	6.1467E-03	-4.7675E-02	-2.8415E-01	-3.5646E-02	2.2498E-03	-9.6980E-02	3.1081E-01	-9.4284E-04
5.4533E-02	5.6960E-01	6.4294E-03	-1.0397E-02	-2.7219E-01	-3.2326E-02	2.2647E-03	-4.0416E-02	1.8238E-01	-9.7109E-04
6.9051E-02	5.9796E-01	6.1020E-03	-4.2022E-02	-2.2730E-01	-3.2603E-02	2.2770E-03	-5.4816E-02	1.0334E-01	-8.9068E-04
8.8173E-02	6.2789E-01	5.8383E-03	-1.1888E-01	-2.5123E-01	-2.9842E-02	2.2228E-03	3.5184E-02	1.4036E-01	-1.0386E-03
1.1296E-01	6.5604E-01	5.4792E-03	-1.2857E-01	-2.5931E-01	-2.6466E-02	2.1050E-03	1.3608E-01	9.1835E-02	-1.2398E-03
1.4412E-01	6.9243E-01	4.9156E-03	-2.0163E-01	-2.6857E-01	-2.4180E-02	1.9087E-03	1.4623E-01	1.9926E-02	-1.1929E-03
1.8520E-01	7.3425E-01	4.3282E-03	-2.3608E-01	-2.3236E-01	-2.6252E-02	1.8227E-03	1.3818E-01	2.7480E-02	-1.3345E-03
2.3513E-01	7.7996E-01	3.7391E-03	-3.3846E-01	-1.3108E-01	-2.8362E-02	1.4261E-03	2.6402E-01	2.3708E-02	-9.9634E-04
3.0028E-01	8.2990E-01	2.7934E-03	-4.4778E-01	9.0829E-02	-3.1687E-02	1.0586E-03	3.2431E-01	6.8085E-02	-7.1004E-04
3.8350E-01	8.8461E-01	1.6439E-03	-6.0967E-01	2.4918E-01	-3.0425E-02	7.2306E-04	4.0734E-01	3.9163E-01	-4.1954E-04
4.8973E-01	9.2076E-01	4.6425E-04	-1.0057E+00	1.6889E+00	-3.4566E-02	3.4995E-04	3.6068E-01	6.1083E-01	-5.4133E-05
6.2606E-01	9.3212E-01	5.5361E-05	-3.5954E-03	1.6258E-01	-3.1293E-02	7.4532E-05	1.4916E-01	-7.3907E-03	2.1744E-05
7.9887E-01	9.2687E-01	3.5171E-05	-2.0729E-01	-1.6508E-01	-2.4024E-02	3.3553E-05	8.3085E-02	-2.2314E-01	1.3258E-05
1.0209E+00	9.2559E-01	3.1314E-05	-2.1326E-01	-3.0125E-01	-1.8670E-02	3.5808E-05	8.6338E-02	-2.6824E-01	1.6637E-05
1.3028E+00	9.1804E-01	3.1146E-05	-1.3443E-01	-3.2103E-01	-1.4752E-02	3.0543E-05	2.5097E-01	-1.8312E-01	1.3148E-05
1.6636E+00	9.2053E-01	3.4542E-05	-2.0004E-01	-3.0797E-01	-5.3593E-03	2.5368E-05	1.9470E-01	-1.5571E-01	1.4782E-05

Table F.2-2 Velocity measurements made at S/T = 0.65 with the UV system of the laser anemometer, plane 3

File E286770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.113237

viscosity (meters squared per second) = 1.641027E-05

Atmospheric pressure (Pascals) = 94615

Velocity of undisturbed free stream (Uref, in m/s) = 27.53122

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094497E-03

Estimated momentum thickness Reynolds number = 6869.266

Location of traverse; X/T = -.1957 Z/T = -.6553 (Plane 3, S/T = 0.50)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.7357E-01				-1.1477E-02				
3.0099E-03	1.7261E-01				-1.4271E-02				
3.5411E-03	2.0702E-01				-2.3595E-02				
4.6034E-03	2.7551E-01	1.8869E-03			-2.9427E-02	2.8348E-04	-4.5190E-01	1.7837E+00	-1.6988E-04
5.6657E-03	3.1505E-01	3.9060E-03			-3.4795E-02	5.1552E-04	-2.0068E-01	1.0198E+00	-4.7256E-04
7.4363E-03	3.4549E-01	4.9115E-03	6.1501E-02	3.6689E-01	-3.8384E-02	7.9871E-04	-3.9791E-02	4.5426E-01	-5.6224E-04
9.5609E-03	3.8001E-01	5.6764E-03	1.0702E-01	1.9938E-02	-4.1322E-02	1.6832E-03	-3.1030E-02	4.4876E-01	-6.6565E-04
1.3102E-02	4.0026E-01	6.3454E-03	1.0091E-02	-2.2408E-01	-4.1255E-02	1.9396E-03	2.7389E-02	3.0060E-01	-8.7328E-04
1.5935E-02	4.1360E-01	6.8824E-03	-2.6298E-02	-1.7633E-01	-4.1175E-02	2.2442E-03	5.9664E-02	2.6024E-01	-1.2661E-03
2.0184E-02	4.2944E-01	7.3526E-03	-7.1531E-02	-1.8779E-01	-4.0248E-02	2.3644E-03	1.0826E-01	2.2106E-01	-1.5999E-03
2.5850E-02	4.4434E-01	7.4523E-03	-1.0720E-01	-1.9141E-01	-4.1646E-02	2.8011E-03	1.0129E-02	2.6109E-01	-1.7098E-03
3.2932E-02	4.6991E-01	7.5365E-03	-1.4189E-01	-1.5487E-01	-3.7392E-02	2.7414E-03	9.6610E-02	3.2070E-01	-2.2680E-03
4.2493E-02	5.0738E-01	7.2316E-03	-1.4043E-01	-1.1852E-01	-3.1395E-02	2.6730E-03	9.3700E-02	1.3425E-01	-2.1034E-03
5.4178E-02	5.3532E-01	6.8372E-03	-1.3990E-01	-1.9085E-01	-3.0088E-02	2.7131E-03	9.8190E-02	9.3910E-02	-2.6298E-03
7.1530E-02	5.7675E-01	6.6554E-03	-1.9346E-01	-1.3643E-01	-2.6706E-02	2.6264E-03	8.5246E-02	1.8992E-01	-1.8756E-03
8.8173E-02	6.0680E-01	6.3240E-03	-1.7070E-01	-1.9726E-01	-2.6871E-02	2.5993E-03	1.0814E-01	1.7242E-01	-2.2348E-03
1.1296E-01	6.4629E-01	5.7254E-03	-1.8592E-01	-1.8818E-01	-2.4106E-02	2.3661E-03	2.0132E-01	7.7470E-02	-1.9469E-03
1.4412E-01	6.8574E-01	5.0957E-03	-2.0667E-01	-1.7821E-01	-2.8798E-02	2.2630E-03	1.6313E-01	7.5860E-02	-1.1403E-03
1.8431E-01	7.3038E-01	4.4104E-03	-2.5852E-01	-1.7319E-01	-3.1833E-02	1.9878E-03	2.2979E-01	8.7806E-02	-1.0635E-03
2.3513E-01	7.7891E-01	3.6369E-03	-3.3213E-01	-9.3682E-02	-3.8805E-02	1.6838E-03	1.8934E-01	2.5731E-02	-8.0548E-04
3.0028E-01	8.2804E-01	2.7274E-03	-4.3852E-01	3.1305E-02	-3.7180E-02	1.2954E-03	2.7827E-01	1.6329E-01	-5.9419E-04
3.8350E-01	8.8185E-01	1.7238E-03	-5.8351E-01	3.9897E-01	-4.1809E-02	7.5437E-04	4.0870E-01	4.1115E-01	-3.0750E-04
4.8973E-01	9.1973E-01	4.3659E-04	-1.0299E+00	1.7391E+00	-4.4644E-02	3.6033E-04	3.4882E-01	6.8460E-01	-3.4181E-05
6.2571E-01	9.2215E-01	5.2706E-05	6.8825E-02	1.1348E-01	-4.1434E-02	7.3858E-05	1.2288E-01	-3.2266E-02	2.3257E-05
7.9993E-01	9.1329E-01	3.3779E-05	-1.9332E-01	-1.7358E-01	-5.1720E-02	3.6302E-05	1.4232E-01	-3.1560E-01	1.6711E-05
1.0202E+00	9.0831E-01	3.4262E-05	-1.5779E-01	-2.8398E-01	-2.9672E-02	2.8771E-05	2.0165E-01	-2.4996E-01	1.3686E-05
1.3028E+00	9.0542E-01	3.4355E-05	-2.2940E-01	-2.7612E-01	-1.3860E-02	3.2217E-05	4.1143E-02	-2.9935E-01	1.5182E-05
1.6636E+00	9.0757E-01	3.3821E-05	-2.6519E-01	-1.8532E-01	-2.5952E-03	3.3613E-05	1.7323E-01	-2.7597E-01	1.7903E-05

Table F.2-3 Velocity measurements made at S/T = 0.50 with the UV system of the laser anemometer, plane 3

File E287770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.9

density (kilograms per meter cubed) = 1.122028

viscosity (meters squared per second) = 1.627742E-05

Atmospheric pressure (Pascals) = 95330

Velocity of undisturbed free stream (Uref, in m/s) = 27.53963

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094247E-03

Estimated momentum thickness Reynolds number = 6927.024

Location of traverse; X/T = -.1208 Z/T = -.589 (Plane 3, S/T = 0.40)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.5935E-03	2.0306E-01				-1.2902E-02				
2.3017E-03	1.7706E-01				-8.8140E-03				
3.1870E-03	1.5971E-01	5.7374E-03			-1.3050E-02	1.0348E-04			
3.8952E-03	1.4885E-01	5.8859E-03			-1.3897E-02	8.3936E-05			
4.6034E-03	1.5889E-01				-1.7745E-02	5.9718E-05			
5.6657E-03	2.7812E-01				-2.9055E-02	3.4193E-04			
7.4363E-03	3.0459E-01	9.2855E-03	4.3553E-02	3.7391E-01	-3.4517E-02	6.2211E-04	-3.6144E-01	1.5969E+00	-9.3035E-04
9.5609E-03	3.4368E-01	7.7567E-03	3.2166E-02	2.6677E-01	-5.4683E-02	1.7910E-03	-6.9793E-01	9.4366E-01	-5.9865E-04
1.2394E-02	3.6875E-01	8.0523E-03	-1.0055E-02	8.2070E-02	-5.3838E-02	2.8545E-03	-2.7447E-01	5.1146E-01	-9.5337E-04
1.7351E-02	3.7852E-01	8.4082E-03	-9.9193E-02	6.0773E-02	-5.6849E-02	4.0543E-03	-7.1609E-02	3.1897E-01	-1.2988E-03
2.0361E-02	3.8881E-01	8.9319E-03	-1.8857E-01	1.4331E-01	-5.6739E-02	4.6985E-03	-2.0229E-02	3.3305E-01	-1.2104E-03
2.6558E-02	4.0354E-01	1.0020E-02	-3.4915E-01	3.5058E-01	-6.0541E-02	6.6719E-03	4.7177E-02	4.2587E-01	-1.1258E-03
3.2932E-02	4.2111E-01	1.1819E-02	-5.8255E-01	8.9366E-01	-5.8437E-02	7.3248E-03	1.1007E-01	5.1613E-01	-1.3198E-03
4.3024E-02	4.5530E-01	1.1371E-02	-6.2354E-01	9.2561E-01	-5.1263E-02	6.5580E-03	2.6535E-01	6.7542E-01	-1.3825E-03
5.5595E-02	4.9070E-01	1.2402E-02	-6.8042E-01	7.6420E-01	-3.6851E-02	7.8006E-03	9.0271E-01	2.1466E+00	-1.3436E-03
7.2238E-02	5.3849E-01	9.4787E-03	-5.0303E-01	4.8597E-01	-3.1596E-02	5.6917E-03	8.1455E-01	1.9208E+00	-1.6816E-03
8.8527E-02	5.8132E-01	8.0075E-03	-3.0759E-01	8.4838E-02	-2.6259E-02	4.3182E-03	5.6206E-01	9.4860E-01	-2.1417E-03
1.1296E-01	6.2962E-01	6.8520E-03	-2.8569E-01	1.7259E-02	-2.0505E-02	4.0976E-03	3.6966E-01	4.1316E-01	-1.5585E-03
1.4412E-01	6.8073E-01	5.4262E-03	-2.0011E-01	-9.4348E-02	-2.7696E-02	2.6497E-03	2.5163E-01	1.3763E-01	-1.7079E-03
1.8449E-01	7.3428E-01	4.3420E-03	-2.3677E-01	-1.3827E-01	-3.9717E-02	2.2360E-03	2.2815E-01	1.0739E-01	-1.4441E-03
2.3584E-01	7.8189E-01	3.5176E-03	-3.1217E-01	-1.2240E-01	-5.6055E-02	1.8567E-03	1.8779E-01	1.7289E-01	-7.7010E-04
3.0064E-01	8.2787E-01	2.7942E-03	-4.4245E-01	1.1147E-01	-6.0883E-02	1.3832E-03	1.6002E-01	2.0791E-01	-5.2760E-04
3.8350E-01	8.7726E-01	1.6523E-03	-6.4729E-01	3.7065E-01	-6.5809E-02	7.5647E-04	3.7314E-01	3.3265E-01	-3.6566E-04
4.8973E-01	9.1119E-01	3.9668E-04	-8.8588E-01	1.4565E+00	-6.3480E-02	3.6495E-04	2.5627E-01	5.3552E-01	-2.7243E-05
6.2571E-01	9.0970E-01	6.2932E-05	9.5151E-02	3.9564E-02	-5.8147E-02	7.6697E-05	3.7974E-01	1.5771E-01	2.5682E-05
7.9887E-01	9.0046E-01	2.9473E-05	-4.2990E-02	-2.5772E-01	-5.1340E-02	3.1917E-05	2.1467E-01	-1.1690E-01	1.3957E-05
1.0202E+00	9.0078E-01	2.5129E-05	-1.0132E-01	-2.6336E-01	-3.3752E-02	4.2095E-05	2.3475E-01	-2.6787E-01	1.6334E-05
1.3028E+00	8.9627E-01	2.5650E-05	-2.9431E-01	-9.9658E-02	-1.4522E-02	4.0373E-05	-2.3026E-01	-2.2156E-01	1.6448E-05
1.6636E+00	8.9686E-01	2.5305E-05	-1.8611E-02	-4.1873E-01	-1.4269E-03	2.4852E-05	-4.4210E-02	-2.4087E-01	1.0989E-05

Table F.2-4 Velocity measurements made at S/T = 0.40 with the UV system of the laser anemometer, plane 3

File E288770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.2

density (kilograms per meter cubed) = 1.125869

viscosity (meters squared per second) = 1.61923E-05

Atmospheric pressure (Pascals) = 95430

Velocity of undisturbed free stream (Uref, in m/s) = 27.51743

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094908E-03

Estimated momentum thickness Reynolds number = 6958.947

Location of traverse; X/T = -.0833 Z/T = -.5559 (Plane 3, S/T = 0.35)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.8530E-01				-1.6437E-02				
2.8329E-03	1.9733E-01				-1.8534E-02				
3.5411E-03	2.0747E-01				-1.8638E-02				
4.6034E-03	3.1203E-01	7.7903E-03			-3.3406E-02	7.1486E-04			-9.4990E-04
5.6657E-03	3.3914E-01	2.0813E-02	-7.0715E-01	1.0819E+00	-4.6648E-02	1.7949E-03	-4.2977E-01	1.7876E+00	-1.8284E-03
7.4363E-03	3.5007E-01	2.4214E-02	-7.9384E-01	8.3035E-01	-5.2098E-02	3.0506E-03	-2.7379E-01	8.2037E-01	-2.4954E-03
9.5609E-03	3.5048E-01	2.5953E-02	-8.6446E-01	7.9076E-01	-5.5749E-02	4.4865E-03	-7.8306E-02	4.8329E-01	-4.1240E-03
1.2394E-02	3.5001E-01	2.8992E-02	-8.1666E-01	3.8213E-01	-5.5310E-02	6.4849E-03	-1.0335E-03	2.3894E-01	-5.5734E-03
1.6289E-02	3.4631E-01	2.6645E-02	-8.1716E-01	3.9627E-01	-5.7876E-02	1.1050E-02	1.9856E-01	1.7389E-01	-8.8299E-03
2.0715E-02	3.4923E-01	2.5928E-02	-8.1699E-01	3.3769E-01	-5.4670E-02	1.3443E-02	3.1078E-01	2.8856E-01	-9.5093E-03
2.5850E-02	3.5739E-01	2.6458E-02	-6.9530E-01	-6.7394E-02	-4.9233E-02	1.7006E-02	5.1341E-01	2.1624E-01	-1.0531E-02
3.2932E-02	3.5959E-01	2.8062E-02	-4.9514E-01	-4.2938E-01	-3.4224E-02	2.2670E-02	5.6625E-01	-4.6444E-03	-1.4149E-02
4.2493E-02	3.8650E-01	2.6469E-02	-4.7637E-01	-4.2467E-01	-2.0430E-02	2.3986E-02	6.1408E-01	-3.9603E-02	-1.4847E-02
5.4178E-02	4.5282E-01	2.0531E-02	-5.6084E-01	-2.8625E-02	-5.2990E-03	2.3352E-02	8.6364E-01	5.0017E-01	-1.1531E-02
6.9051E-02	5.2512E-01	1.4498E-02	-5.3927E-01	2.5483E-01	4.9375E-04	1.9066E-02	9.8704E-01	9.9464E-01	-9.0266E-03
8.8173E-02	6.0023E-01	1.1147E-02	-2.8144E-01	2.9442E-01	-4.7645E-03	1.3723E-02	9.8191E-01	1.3041E+00	-5.0028E-03
1.1367E-01	6.5647E-01	7.7946E-03	-2.0270E-01	6.3412E-02	-2.4597E-02	6.7851E-03	6.9277E-01	1.4207E+00	-1.7385E-03
1.4412E-01	7.0220E-01	6.0363E-03	-2.0193E-01	-2.3898E-02	-3.9088E-02	3.8437E-03	2.8072E-01	2.4394E-01	-1.2287E-03
1.8520E-01	7.6341E-01	4.2599E-03	-2.4184E-01	-1.5012E-01	-5.4962E-02	2.2889E-03	1.8655E-01	7.7076E-02	-1.4964E-03
2.3513E-01	7.8875E-01	3.4755E-03	-3.4035E-01	-9.2664E-02	-6.8136E-02	1.7410E-03	2.6455E-01	1.2390E-01	-7.7981E-04
3.0064E-01	8.3235E-01	2.4702E-03	-4.4620E-01	-2.7641E-02	-8.0292E-02	1.3158E-03	2.5837E-01	2.0430E-01	-4.7058E-04
3.8456E-01	8.7425E-01	1.5108E-03	-6.4428E-01	4.1150E-01	-8.5600E-02	7.9435E-04	4.4478E-01	5.3047E-01	-3.4474E-04
4.8973E-01	9.0092E-01	3.6591E-04	-1.1350E+00	2.4657E+00	-8.3858E-02	3.1020E-04	2.8010E-01	8.2992E-01	-1.0378E-04
6.2571E-01	8.9680E-01	5.2688E-05	1.0473E-01	2.1280E-01	-7.1328E-02	6.5584E-05	1.9163E-01	-1.0411E-02	1.1539E-05
7.9887E-01	8.8827E-01	2.8140E-05	-7.4922E-03	-3.0419E-01	-4.7376E-02	2.4575E-05	6.0425E-02	-2.5498E-01	6.4908E-06
1.0202E+00	8.8644E-01	2.1119E-05	-1.6278E-01	-8.7972E-02	-3.6240E-02	3.0298E-05	-1.4824E-01	-1.1570E-01	1.0281E-05
1.3028E+00	8.8480E-01	2.8204E-05	1.8325E-02	-3.1667E-01	-2.3118E-02	2.8281E-05	-4.7873E-02	-2.3361E-01	1.4904E-05
1.6728E+00	8.8436E-01	2.9191E-05	-4.4440E-02	-3.7089E-01	-9.8396E-03	2.8519E-05	7.4891E-02	-2.5193E-01	1.1311E-05

Table F.2-5 Velocity measurements made at S/T = 0.35 with the UV system of the laser anemometer, plane 3

File E289770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.085636

viscosity (meters squared per second) = 1.692379E-05

Atmospheric pressure (Pascals) = 92955

Velocity of undisturbed free stream (Uref, in m/s) = 27.55028

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093931E-03

Estimated momentum thickness Reynolds number = 6664.517

Location of traverse; X/T = -.0459 Z/T = -.5228001 (Plane 3, S/T = 0.30)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
2.1246E-03	1.7706E-01				-1.3675E-02				
2.8329E-03	1.7161E-01				-2.0002E-02				
3.8952E-03	2.1629E-01	2.0805E-02	1.2903E-01	9.5775E-02	-3.1506E-02				
4.6034E-03	2.3532E-01	2.6416E-02	-2.8665E-02	-4.5043E-01	-3.9175E-02	1.2000E-03	-7.6140E-01	2.6098E+00	-7.2414E-04
6.3739E-03	2.8543E-01	3.4979E-02	-4.1833E-01	-5.3002E-01	-4.9247E-02	2.6140E-03	-2.8035E-01	8.7809E-01	-1.2015E-03
7.7904E-03	2.8273E-01	3.9865E-02	-3.5124E-01	-8.4573E-01	-5.0597E-02	3.3860E-03	-1.4507E-01	6.2285E-01	-1.1473E-03
9.5609E-03	2.8034E-01	4.2021E-02	-2.2496E-01	-1.0156E+00	-4.9054E-02	5.0599E-03	-4.3037E-02	1.3468E-01	-2.7808E-03
1.2394E-02	2.9264E-01	4.1131E-02	-1.7813E-01	-1.0318E+00	-5.0495E-02	8.0517E-03	3.4968E-02	-2.5599E-02	-3.2880E-03
1.5935E-02	2.8024E-01	3.9218E-02	-4.4653E-02	-9.8797E-01	-3.9178E-02	1.1544E-02	1.3762E-01	-1.6285E-01	-4.5396E-03
2.2309E-02	2.8954E-01	3.3514E-02	-1.0163E-01	-9.1059E-01	-3.2244E-02	2.0633E-02	2.4239E-01	-3.4803E-01	-7.8706E-03
2.5850E-02	2.8649E-01	3.1499E-02	3.5679E-02	-8.3609E-01	-3.3804E-02	2.4727E-02	3.0075E-01	-3.6730E-01	-8.4465E-03
3.2932E-02	2.9595E-01	2.9486E-02	5.6170E-02	-7.1228E-01	-2.4947E-02	2.7647E-02	3.4355E-01	-4.8573E-01	-1.0042E-02
3.4348E-02	3.0056E-01	2.8993E-02	-1.1071E-02	-7.5635E-01	-1.9871E-02	2.7584E-02	3.5508E-01	-5.2352E-01	-1.2104E-02
4.2493E-02	3.3234E-01	2.7052E-02	-2.5606E-02	-5.6112E-01	-1.2316E-02	3.3211E-02	3.5895E-01	-5.0592E-01	-1.2042E-02
5.4887E-02	4.2604E-01	2.3119E-02	-2.5965E-01	-3.5878E-01	-6.9428E-05	3.5846E-02	3.8849E-01	-3.5722E-01	
6.9051E-02	5.4413E-01	1.7548E-02	-2.9442E-01	3.3686E-02	-7.4734E-03	3.2790E-02	4.2328E-01	-1.5956E-01	-1.1057E-02
8.8173E-02	6.2061E-01	1.1968E-02	-1.3529E-01	1.7664E-01	-2.8907E-02	1.7700E-02	6.0047E-01	6.8445E-01	-4.0440E-03
1.1296E-01	6.7128E-01	7.8341E-03	-7.9057E-02	4.2537E-02	-4.2837E-02	9.1065E-03	6.4175E-01	1.2877E+00	-1.5137E-03
1.4448E-01	7.1436E-01	5.6695E-03	-1.3144E-01	-8.5390E-02	-6.2417E-02	4.0727E-03	1.8723E-01	1.9475E-01	-1.0600E-03
1.8484E-01	7.4686E-01	4.0328E-03	-2.5550E-01	-5.4873E-02	-7.6764E-02	2.3654E-03	2.6451E-01	2.0011E-01	-1.4062E-03
2.3513E-01	7.8323E-01	3.3036E-03	-3.1319E-01	-4.6026E-02	-8.7751E-02	1.7915E-03	2.5223E-01	1.3852E-01	-6.9240E-04
3.0028E-01	8.2261E-01	2.4019E-03	-4.3785E-01	4.0670E-02	-9.3889E-02	1.3160E-03	3.2132E-01	2.8364E-01	-4.2605E-04
3.8350E-01	8.6445E-01	1.4735E-03	-6.7455E-01	4.4809E-01	-9.5357E-02	7.9920E-04	4.5009E-01	4.9887E-01	-2.9187E-04
4.8973E-01	8.9206E-01	3.5198E-04	-1.0552E+00	2.1482E+00	-8.9769E-02	3.1879E-04	4.3982E-01	1.1452E+00	-9.3085E-05
6.2571E-01	8.8673E-01	5.9361E-05	3.4378E-02	4.7624E-02	-7.6966E-02	6.4257E-05	3.5676E-02	2.3138E-02	2.2261E-05
7.9887E-01	8.7824E-01	2.8926E-05	-3.4082E-02	-3.1891E-01	-5.1340E-02	3.0699E-05	-3.1227E-02	-1.9374E-01	9.4354E-06
1.0202E+00	8.7744E-01	2.6414E-05	-1.1980E-01	-2.7490E-01	-3.9008E-02	2.5515E-05	-1.2862E-01	-1.2879E-01	1.1601E-05
1.3028E+00	6.7719E-01	2.4693E-05	-1.3912E-01	-2.7213E-01	-1.8650E-02	1.6541E-05	7.1739E-02	-3.4833E-01	5.5859E-06
1.6636E+00	8.8045E-01	2.8370E-05	-2.6206E-01	-2.3255E-01	-3.8507E-03	1.8740E-05	4.7853E-02	-2.7536E-01	1.1170E-05

Table F.2-6 Velocity measurements made at S/T = 0.30 with the UV system of the laser anemometer, plane 3

File E290770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.10298

viscosity (meters squared per second) = 1.665768E-05

Atmospheric pressure (Pascals) = 94440

Velocity of undisturbed free stream (Uref, in m/s) = 28.16233

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.075979E-03

Estimated momentum thickness Reynolds number = 6891.059

Location of traverse; X/T = -.0084 Z/T = -.4896 (Plane 3, S/T = 0.25)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
7.0822E-04	1.3147E-01				-2.5385E-02				
1.4164E-03	1.3209E-01				-2.6378E-02				
2.4788E-03	1.5478E-01				-3.3606E-02				
3.1870E-03	1.7076E-01	1.6988E-02	7.5147E-01	6.2484E-01	-3.8751E-02	8.2669E-04	-4.1748E-01	1.2124E+00	-2.1552E-03
4.2493E-03	2.2021E-01	2.3607E-02	3.7482E-01	-1.3184E-01	-4.8023E-02	1.5161E-03	-4.1225E-01	1.3456E+00	-1.2647E-03
6.0198E-03	2.4893E-01	3.2516E-02	2.9345E-01	-6.9288E-01	-5.4187E-02	2.4307E-03	1.0011E-01	3.9759E-01	1.9572E-04
8.1445E-03	2.4789E-01				-6.1194E-02	4.1085E-03	2.2939E-01	3.7398E-01	
1.0977E-02	2.4651E-01	3.0019E-02	5.8817E-01	-3.5502E-01	-6.2756E-02	5.6993E-03	3.5090E-01	2.0731E-01	
1.4518E-02	2.5928E-01	2.9217E-02	4.6726E-01	-4.6776E-01	-4.9682E-02	1.2917E-02	2.7544E-01	-2.6291E-01	-3.6907E-03
1.8768E-02	2.5896E-01	2.6155E-02	4.7337E-01	-1.7695E-01	-5.0122E-02	1.7670E-02	2.8495E-01	-2.7709E-01	-4.3001E-03
2.4433E-02	2.6561E-01	2.1415E-02	3.8904E-01	-1.0773E-01	-5.4060E-02	2.3019E-02	4.3096E-01	-1.8782E-01	-5.1921E-03
3.1516E-02	2.8555E-01	1.8347E-02	2.3173E-01	1.6823E-02	-5.8361E-02	2.2459E-02	6.4562E-01	1.9583E-01	-9.5644E-03
4.1076E-02	3.4141E-01	2.1597E-02	-1.6209E-02	-1.7471E-01	-6.5648E-02	4.2458E-02	3.8350E-01	-4.8136E-01	-8.3681E-03
5.5949E-02	4.6818E-01	1.9303E-02	-8.5131E-02	4.7993E-02	-9.5913E-02	4.5413E-02	7.5891E-01	8.3196E-02	-7.1222E-03
6.8343E-02	5.8305E-01	1.7099E-02	-6.4211E-02	1.2629E-02	-7.3570E-02	4.1326E-02	5.8419E-01	-4.8374E-02	-1.2303E-03
9.0652E-02	6.7703E-01	1.0862E-02	-6.7829E-02	1.1426E-01	-9.6085E-02	1.6151E-02	6.9352E-01	9.1406E-01	-3.6425E-04
1.1154E-01	7.0602E-01	8.0895E-03	-8.0303E-02	-1.5281E-02	-1.1472E-01	9.3648E-03	6.2892E-01	9.6285E-01	-4.8965E-04
1.4271E-01	7.3989E-01	5.1838E-03	-1.8864E-01	-7.9799E-02	-1.1661E-01	4.4926E-03	2.0709E-01	1.7394E-01	-8.0279E-04
1.8272E-01	7.6789E-01	3.8256E-03	-2.2488E-01	-1.1217E-01	-1.1057E-01	2.5921E-03	1.5295E-01	5.8201E-02	-1.3062E-03
2.3371E-01	8.0093E-01	3.0821E-03	-2.9156E-01	-1.3390E-01	-1.1858E-01	2.1491E-03	1.7938E-02	3.8607E-01	-1.2403E-03
2.9887E-01	8.3878E-01	2.1905E-03	-4.5420E-01	4.2334E-02	-1.2319E-01	1.3591E-03	2.3263E-01	3.4731E-01	-9.0933E-04
3.8208E-01	8.7941E-01	1.1557E-03	-6.8814E-01	6.6281E-01	-1.1705E-01	6.7966E-04	3.4298E-01	4.4960E-01	-3.1890E-04
4.8831E-01	8.9634E-01	2.6905E-04	-9.3065E-01	2.1174E+00	-1.0937E-01	2.0694E-04	1.3507E-01	6.8040E-01	2.0350E-05
6.2429E-01	8.8624E-01	5.2890E-05	5.3655E-02	3.5442E-02	-8.0040E-02	7.4916E-05	2.9221E-03	-1.1995E-01	2.2104E-05
7.9745E-01	8.7727E-01	2.4734E-05	-2.3319E-02	-1.9797E-01	-6.0483E-02	2.7925E-05	-5.3090E-02	-1.3005E-01	4.0792E-06
1.0188E+00	8.7960E-01	2.3791E-05	-1.0743E-01	-3.2709E-01	-4.0622E-02	2.9302E-05	-7.3574E-02	-1.7449E-01	9.5408E-06
1.3013E+00	8.8354E-01	2.2082E-05	-1.6133E-01	-2.4967E-01	-2.5724E-02	2.3877E-05	-9.0390E-02	-1.7178E-01	8.4254E-06
1.6629E+00	8.8627E-01	2.2861E-05	-2.3548E-01	-1.4595E-01	-1.0497E-02	2.8982E-05	-7.5302E-02	-1.5735E-01	1.2932E-05

Table F.2-7 Velocity measurements made at S/T = 0.25 with the UV system of the laser anemometer, plane 3

File E291770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.120257

viscosity (meters squared per second) = 1.626486E-05

Atmospheric pressure (Pascals) = 94890

Velocity of undisturbed free stream (Uref, in m/s) = 27.46314

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.096525E-03

Estimated momentum thickness Reynolds number = 6916.964

Location of traverse; X/T = .029 Z/T = -.4565 (Plane 3, S/T = 0.20)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	1.2573E-01				-3.0757E-02				
2.4788E-03	1.3350E-01				-3.7237E-02				
3.5411E-03	1.9208E-01	1.1515E-02			-5.0802E-02	2.6004E-04			1.4067E-03
4.6034E-03	2.0634E-01	1.3813E-02	4.6366E-01	5.7224E-01	-6.9650E-02	1.0787E-03			5.8133E-05
6.0198E-03	2.2456E-01	1.5115E-02	6.4032E-01	7.8223E-01	-7.9551E-02	2.3957E-03	1.2286E-01	1.2682E+00	3.4801E-04
7.4363E-03	2.3469E-01	1.3549E-02	6.0272E-01	8.3853E-01	-8.3416E-02	2.8263E-03	2.7730E-01	9.8161E-01	8.6544E-04
9.5609E-03	2.4419E-01	1.1369E-02	4.0400E-01	5.3706E-01	-8.7138E-02	3.8286E-03	4.4002E-01	1.0783E+00	-5.8957E-04
1.2394E-02	2.5519E-01	1.0075E-02	2.4051E-01	2.5627E-01	-9.3818E-02	4.7466E-03	5.2049E-01	1.1475E+00	-1.3867E-03
1.5935E-02	2.6019E-01	1.1311E-02	3.1317E-01	4.6799E-01	-9.9340E-02	9.6296E-03	4.5399E-01	6.9139E-01	-2.5974E-03
2.0538E-02	2.8348E-01	1.1245E-02	-3.5313E-03	2.7631E-01	-1.0818E-01	1.2942E-02	7.3279E-01	1.2186E+00	-2.4109E-03
2.5850E-02	3.1311E-01	1.1573E-02	-1.0292E-01	2.3375E-01	-1.2566E-01	1.4761E-02	7.7384E-01	1.6492E+00	-2.8284E-03
3.2932E-02	3.6809E-01	1.0867E-02	-3.4799E-01	3.7246E-01	-1.5019E-01	1.5181E-02	7.8130E-01	2.1232E+00	-3.5926E-03
4.2493E-02	4.1179E-01	1.3978E-02	-3.5301E-01	4.9301E-01	-1.7048E-01	2.6839E-02	9.1362E-01	1.7480E+00	-3.5110E-03
5.4178E-02	5.0168E-01	1.2175E-02	-1.0937E-02	4.0362E-01	-2.0063E-01	2.3055E-02	9.1412E-01	2.3666E+00	2.6868E-04
6.9051E-02	5.9802E-01	1.3680E-02	2.2306E-01	2.7267E-02	-1.9292E-01	1.9930E-02	7.9383E-01	1.7369E+00	-4.4415E-04
8.8173E-02	6.5826E-01	1.0132E-02	1.7593E-01	3.1637E-02	-1.9344E-01	9.1499E-03	6.5982E-01	1.5437E+00	-2.9353E-04
1.1314E-01	7.1710E-01	6.7668E-03	-2.3816E-02	-7.7282E-02	-1.7482E-01	5.3186E-03	3.4482E-01	3.5979E-01	-4.5664E-04
1.4412E-01	7.3820E-01	4.2611E-03	-1.3807E-01	-1.7877E-01	-1.6498E-01	3.4019E-03	2.3238E-01	5.0396E-02	-7.6003E-04
1.8414E-01	7.6755E-01	3.4697E-03	-2.3494E-01	-1.1757E-01	-1.5570E-01	2.4481E-03	1.5831E-01	3.7410E-03	-6.2655E-04
2.3513E-01	7.9967E-01	2.7875E-03	-3.5419E-01	-1.9751E-02	-1.5446E-01	1.8195E-03	1.9563E-01	8.8884E-02	-5.5959E-04
3.0028E-01	8.3785E-01	2.0914E-03	-4.8912E-01	1.6510E-01	-1.5032E-01	1.2947E-03	2.2067E-01	1.6582E-01	-2.8234E-04
3.8350E-01	8.6741E-01	1.1448E-03	-7.2796E-01	5.5220E-01	-1.4252E-01	8.2852E-04	2.4224E-01	4.0435E-01	-1.4615E-04
4.8973E-01	8.8659E-01	2.1497E-04	-5.4403E-01	1.4670E+00	-1.2351E-01	2.8903E-04	2.0589E-01	1.1444E+00	9.2975E-06
6.2571E-01	8.7608E-01	5.7971E-05	-3.3343E-03	3.8115E-02	-9.7078E-02	6.5632E-05	3.5929E-03	-1.1786E-01	1.7173E-05
8.1480E-01	8.7098E-01	2.9925E-05	-1.2598E-01	-2.2559E-01	-6.3822E-02	3.3523E-05	-1.2127E-01	-2.1906E-01	9.6848E-06
1.0202E+00	8.7331E-01	2.6148E-05	-1.1063E-01	-2.5194E-01	-5.1295E-02	3.4111E-05	-4.2122E-02	-2.8600E-01	1.2901E-05
1.3028E+00	8.7628E-01	2.3096E-05	-1.6118E-01	-2.9372E-01	-3.4819E-02	2.3651E-05	-1.7327E-01	-1.6431E-01	6.4039E-06
1.6636E+00	8.8161E-01	1.8674E-05	-1.1318E-01	-2.5162E-01	-1.9921E-02	2.4483E-05	-1.2051E-01	-2.5400E-01	8.8028E-06

Table F.2-8 Velocity measurements made at S/T = 0.20 with the UV system of the laser anemometer, plane 3

File E292770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.2

density (kilograms per meter cubed) = 1.118672

viscosity (meters squared per second) = 1.629646E-05

Atmospheric pressure (Pascals) = 94820

Velocity of undisturbed free stream (Uref, in m/s) = 27.40042

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.098399E-03

Estimated momentum thickness Reynolds number = 6890.932

Location of traverse; X/T = .0665 Z/T = -.4234 (Plane 3, S/T = 0.15)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.0709E-01				-4.3549E-02				
2.1246E-03	2.4910E-01				-4.7911E-02				
3.0099E-03	2.8402E-01	8.9578E-03			-6.2507E-02	1.5214E-04			-1.6497E-04
3.5411E-03	2.9323E-01	1.0085E-02	1.4970E-01	2.0164E-01	-6.9044E-02	2.6644E-04			2.1737E-04
4.6034E-03	3.0278E-01	1.0160E-02	9.4624E-02	-5.2669E-02	-8.2729E-02	1.0202E-03	-9.3035E-01	4.0098E+00	4.5814E-05
5.6657E-03	3.0309E-01	9.4852E-03	5.5148E-02	-3.1423E-02	-9.3179E-02	1.7765E-03	-7.2962E-01	2.4196E+00	-5.0148E-04
8.1445E-03	3.3152E-01	8.7263E-03	1.3629E-02	-2.2127E-02	-9.6578E-02	1.7953E-03	1.3748E-02	9.6264E-01	-6.2085E-04
9.5609E-03	3.3133E-01	8.1820E-03	1.7392E-03	-4.4744E-02	-9.8830E-02	2.0053E-03	7.9732E-02	1.1838E+00	-6.3509E-04
1.2394E-02	3.6467E-01	7.6504E-03	2.0475E-02	-1.2231E-02	-1.0835E-01	2.4876E-03	1.7021E-02	7.7883E-01	-8.5466E-04
1.6643E-02	3.9036E-01	7.1568E-03	-6.6020E-02	3.9645E-02	-1.2972E-01	4.3342E-03	7.8836E-02	7.0747E-01	-9.7661E-04
2.0184E-02	3.9780E-01	6.9806E-03	-6.4634E-02	2.6990E-02	-1.3388E-01	5.5417E-03	-1.8135E-01	6.3232E-01	-4.5561E-04
2.6204E-02	4.3466E-01	6.4987E-03	-1.2612E-01	1.8731E-01	-1.6860E-01	5.7809E-03	-2.3397E-01	4.2592E-01	-4.9529E-04
3.3463E-02	4.7866E-01	5.7778E-03	-3.9476E-02	9.1097E-02	-1.6689E-01	6.3532E-03	-3.0166E-01	5.0790E-01	-3.2115E-04
4.4263E-02	5.1417E-01	6.5170E-03	4.0825E-02	1.4271E-02	-1.9640E-01	8.7952E-03	-5.6289E-01	9.6856E-01	1.4209E-04
5.4887E-02	5.6231E-01	5.9493E-03	2.0299E-01	1.3300E-01	-2.0226E-01	7.5597E-03	-3.7790E-01	5.7066E-01	-7.2593E-04
6.9051E-02	6.1810E-01	7.5015E-03	3.9028E-01	3.9562E-01	-2.1671E-01	7.0955E-03	-2.6385E-01	3.8159E-01	-4.1352E-04
8.8173E-02	6.7646E-01	5.5413E-03	1.6702E-01	5.2856E-02	-2.1592E-01	5.1825E-03	3.9221E-02	1.3262E-01	-8.3661E-04
1.1296E-01	7.1257E-01	4.7233E-03	2.2874E-02	-1.3751E-01	-2.1336E-01	4.0573E-03	1.8863E-01	1.1888E-01	-7.3747E-04
1.4412E-01	7.5070E-01	4.1271E-03	-7.3626E-02	-1.6602E-01	-2.0677E-01	2.8618E-03	2.0561E-01	2.0428E-02	-9.2811E-04
1.8414E-01	7.9025E-01	3.1085E-03	-2.2750E-01	-1.4119E-01	-1.9640E-01	2.3206E-03	2.1875E-01	6.7862E-02	-5.1260E-04
2.3584E-01	8.2369E-01	2.5865E-03	-2.9700E-01	-2.7197E-02	-1.9088E-01	1.7988E-03	2.4361E-01	1.7769E-01	-4.0800E-04
3.0028E-01	8.5825E-01	1.8420E-03	-4.5168E-01	1.1910E-01	-1.8753E-01	1.2717E-03	2.3806E-01	2.9429E-01	-2.4964E-04
3.8350E-01	8.8562E-01	9.1889E-04	-7.7460E-01	6.8931E-01	-1.6888E-01	7.2726E-04	2.6605E-01	3.2970E-01	-1.5150E-04
4.8973E-01	9.0088E-01	2.0148E-04	-1.8255E-01	1.3149E+00	-1.3767E-01	2.4466E-04	-1.7839E-01	7.0841E-01	8.6403E-06
6.2642E-01	8.9011E-01	6.7299E-05	-1.4468E-01	-6.9211E-02	-9.8536E-02	6.9124E-05	-4.7647E-02	-9.5096E-02	1.4602E-05
7.9887E-01	8.8939E-01	5.1626E-05	-3.5526E-01	-2.2359E-01	-7.5218E-02	4.7905E-05	1.5215E-01	-1.8614E-01	1.8459E-05
1.0202E+00	8.8976E-01	4.3688E-05	-5.2936E-01	9.2724E-02	-4.6928E-02	3.2527E-05	-2.1279E-02	-1.8801E-01	1.0757E-05
1.3152E+00	9.0021E-01	4.5021E-05	-3.0008E-01	-3.4978E-01	-3.1264E-02	3.6456E-05	-4.1866E-03	-2.0678E-01	2.1148E-05
1.6640E+00	8.9982E-01	4.5266E-05	-3.0691E-01	-3.4438E-01	-1.6376E-02	3.3015E-05	-7.1908E-02	-2.5823E-01	2.0542E-05

Table F.2-9 Velocity measurements made at S/T = 0.15 with the UV system of the laser anemometer, plane 3

File E293770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.5

density (kilograms per meter cubed) = 1.115709

viscosity (meters squared per second) = 1.635252E-05

Atmospheric pressure (Pascals) = 94665

Velocity of undisturbed free stream (Uref, in m/s) = 27.44573

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097045E-03

Estimated momentum thickness Reynolds number = 6876.393

Location of traverse; X/T = .1309 Z/T = -.3903 (Plane 3, S/T = 0.1)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.8307E-01				-2.8749E-02				
2.1246E-03	2.2760E-01				-3.6180E-02				
2.8329E-03	2.4287E-01				-4.0074E-02				
3.5411E-03	2.8312E-01	7.2024E-03			-4.9660E-02	1.7761E-04			
4.6034E-03	3.6204E-01	4.0960E-03			-6.0928E-02	2.5046E-04			
5.8428E-03	3.8163E-01	9.6920E-03	-5.1991E-02	1.2089E-01	-6.9298E-02	4.2878E-04	5.2197E-01	2.0113E+00	-3.6738E-04
7.4363E-03	4.0572E-01	8.2992E-03	-4.5847E-02	6.6929E-02	-7.8438E-02	7.5163E-04	8.7579E-02	1.7944E+00	-7.5489E-04
1.0623E-02	4.4077E-01	7.2480E-03	-2.9229E-02	-9.2522E-02	-1.0262E-01	2.1553E-03	-3.7816E-01	6.0470E-01	-1.4679E-04
1.2394E-02	4.5186E-01	6.6133E-03	-2.3066E-02	-8.3392E-02	-1.0373E-01	2.1014E-03	1.5797E-01	3.9185E-01	-4.2899E-04
1.5935E-02	4.7376E-01	5.8820E-03	-3.8560E-02	-1.3052E-01	-1.1484E-01	2.6880E-03	3.1989E-01	5.8101E-01	-3.9493E-04
2.0538E-02	4.8349E-01	5.2656E-03	1.4100E-02	-1.4198E-01	-1.2900E-01	3.2553E-03	1.9882E-01	2.6414E-01	-5.9055E-04
2.5850E-02	5.1675E-01	5.1175E-03	2.0801E-02	-3.1480E-02	-1.4028E-01	3.7681E-03	2.2304E-01	3.7139E-01	-2.0528E-04
3.2932E-02	5.5779E-01	4.0174E-03	4.4601E-02	-1.2736E-01	-1.5864E-01	4.0072E-03	2.1883E-01	2.7844E-01	1.7247E-04
4.2493E-02	5.9316E-01	3.6588E-03	5.8763E-02	-4.8365E-02	-1.7389E-01	4.1672E-03	1.9871E-01	3.2572E-01	1.5151E-04
5.4178E-02	6.1380E-01	3.5853E-03	9.5711E-02	-1.0503E-01	-1.9377E-01	4.1924E-03	-1.3415E-02	1.3680E-01	-2.2787E-04
6.9051E-02	6.6049E-01	3.2473E-03	5.3102E-02	-2.0851E-02	-2.1658E-01	3.9182E-03	4.7439E-02	3.6681E-02	-3.2485E-04
8.8527E-02	6.9796E-01	3.2393E-03	4.2320E-02	-1.2334E-01	-2.3154E-01	3.6491E-03	7.9112E-02	4.8379E-02	-3.3191E-04
1.1367E-01	7.3610E-01	3.1395E-03	-2.2658E-04	-1.1306E-01	-2.4473E-01	2.9356E-03	1.5693E-01	1.5755E-01	-5.2406E-04
1.4412E-01	7.7719E-01	2.8034E-03	-1.0748E-01	-9.9523E-02	-2.5283E-01	2.8317E-03	1.6621E-01	2.1343E-01	-5.4420E-04
1.8449E-01	8.0677E-01	2.6331E-03	-1.9034E-01	-1.2442E-01	-2.4067E-01	2.3441E-03	1.4970E-01	1.3860E-01	-5.4846E-04
2.3513E-01	8.3872E-01	2.1495E-03	-3.3132E-01	-2.1221E-02	-2.3312E-01	1.7243E-03	1.4332E-01	2.2127E-01	-4.5321E-04
3.0135E-01	8.7158E-01	1.4937E-03	-4.7889E-01	2.2145E-01	-2.2852E-01	1.2798E-03	8.6137E-02	3.2184E-01	-1.9315E-04
3.8350E-01	8.9536E-01	7.5735E-04	-5.6616E-01	1.0348E+00	-1.9867E-01	7.6633E-04	-3.7216E-02	3.6460E-01	-5.1354E-05
4.8973E-01	9.0134E-01	1.3901E-04	4.2593E-01	1.0397E+00	-1.5301E-01	2.4290E-04	-5.3114E-01	4.8404E-01	2.3431E-05
6.2571E-01	8.9607E-01	5.7764E-05	1.5901E-03	-1.3611E-01	-1.1171E-01	8.8051E-05	-1.6727E-01	7.5077E-02	1.8438E-05
7.9887E-01	8.9693E-01	4.6257E-05	-1.7460E-01	-3.5254E-01	-7.4035E-02	4.9741E-05	-3.0715E-01	4.3813E-01	1.6886E-05
1.0202E+00	9.0636E-01	3.0871E-05	-1.2083E-01	-3.0855E-01	-5.5498E-02	4.3895E-05	-8.1972E-02	-1.3116E-01	1.7924E-05
1.3028E+00	9.0572E-01	3.4545E-05	-2.4280E-01	-3.4857E-01	-3.7618E-02	3.7648E-05	7.8437E-02	-1.8789E-01	1.4965E-05
1.6636E+00	9.1013E-01	2.6736E-05	-1.4608E-01	-1.6667E-01	-2.4240E-02	3.1565E-05	1.5869E-01	-2.1865E-01	8.8995E-06

Table F.2-10 Velocity measurements made at S/T = 0.1 with the UV system of the laser anemometer, plane 5

File E294770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.8

density (kilograms per meter cubed) = 1.118522

viscosity (meters squared per second) = 1.632419E-05

Atmospheric pressure (Pascals) = 95000

Velocity of undisturbed free stream (Uref, in m/s) = 27.43363

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097406E-03

Estimated momentum thickness Reynolds number = 6885.899

Location of traverse; X/T = .1414 Z/T = -.3571 (Plane 3, S/T = 0.05)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.9485E-01				-4.1514E-02				
2.1246E-03	4.1209E-01				-5.8650E-02				
2.8329E-03	4.9575E-01				-6.3977E-02				
3.5411E-03	5.1056E-01	6.4889E-03	-3.1134E-01	1.4020E+00	-7.1297E-02	6.2448E-04			4.6391E-04
4.6034E-03	5.4577E-01	5.1109E-03			-8.0131E-02	9.1096E-04	-2.6750E-02	1.9222E+00	2.6383E-04
5.8428E-03	5.5744E-01	5.4462E-03	-1.0541E-01	7.9725E-02	-9.2814E-02	1.3958E-03	-9.4023E-02	1.3039E+00	-4.0167E-05
7.4363E-03	5.6908E-01	5.1947E-03	-1.1851E-01	-2.8598E-02	-1.0111E-01	1.9472E-03	1.6097E-01	6.7920E-01	1.3600E-04
9.5609E-03	5.5712E-01	5.1829E-03	-4.0257E-02	-6.7803E-02	-1.1238E-01	2.6070E-03	2.2393E-01	6.2013E-01	-1.0646E-04
1.3456E-02	5.7280E-01	4.7367E-03	-8.4449E-03	-1.2016E-01	-1.2389E-01	3.1961E-03	4.1643E-01	8.3023E-01	1.0529E-04
1.5935E-02	5.8645E-01	4.5091E-03	7.2672E-04	-1.9180E-02	-1.4424E-01	3.4334E-03	3.5554E-01	6.5025E-01	2.3717E-04
2.0538E-02	6.0614E-01	4.0506E-03	-3.7219E-02	-9.3298E-03	-1.4748E-01	3.7857E-03	1.8019E-01	2.5513E-01	4.0230E-04
2.6204E-02	6.4298E-01	3.3533E-03	6.8662E-02	6.1908E-02	-1.6380E-01	4.1227E-03	2.4169E-01	1.5374E-01	-2.9767E-05
3.2932E-02	6.6642E-01	2.9315E-03	4.6041E-02	-5.1791E-02	-1.9228E-01	4.7136E-03	2.6031E-02	1.2219E-01	1.1020E-04
4.3201E-02	6.6865E-01	2.8100E-03	1.8063E-02	-6.7793E-02	-1.9341E-01	4.0033E-03	1.9016E-01	2.3647E-01	2.3850E-04
5.4178E-02	7.0564E-01	2.5036E-03	-7.2554E-02	-2.1544E-02	-2.2215E-01	4.2303E-03	9.9614E-02	1.2169E-01	2.8063E-05
6.9405E-02	7.1917E-01	2.5246E-03	-4.6877E-02	-8.2028E-02	-2.2689E-01	3.6700E-03	1.5518E-01	1.7309E-01	-1.8745E-04
8.8173E-02	7.5562E-01	2.4288E-03	-1.2212E-02	1.2170E-02	-2.5167E-01	3.7246E-03	4.9193E-02	6.4809E-02	-1.2340E-04
1.1296E-01	7.9291E-01	2.2774E-03	-6.5667E-02	-4.3700E-02	-2.7171E-01	3.1849E-03	2.4127E-02	8.9637E-02	-1.2893E-04
1.4412E-01	8.0824E-01	2.3050E-03	-9.9978E-02	-1.9519E-01	-2.5871E-01	2.7110E-03	8.4886E-02	2.0892E-01	-2.5890E-04
1.8484E-01	8.4852E-01	1.9081E-03	-2.0201E-01	-6.3594E-02	-2.7479E-01	2.2657E-03	8.2805E-03	1.4412E-01	-2.1719E-04
2.3513E-01	8.7532E-01	1.6338E-03	-3.2900E-01	1.2209E-01	-2.6507E-01	1.7892E-03	-4.4937E-02	1.4691E-01	-1.7739E-04
3.0028E-01	9.0272E-01	1.2124E-03	-4.6083E-01	2.4237E-01	-2.4146E-01	1.3083E-03	-8.4589E-02	2.8262E-01	-3.0183E-05
3.8350E-01	9.1904E-01	5.4979E-04	-7.2757E-01	1.1956E+00	-1.9825E-01	7.3963E-04	-2.1051E-01	3.9858E-01	-9.3302E-05
4.8973E-01	9.3174E-01	1.4117E-04	1.9987E-01	6.8444E-01	-1.5354E-01	2.6217E-04	-6.7779E-01	8.5244E-01	3.3495E-07
6.2571E-01	9.2753E-01	6.2364E-05	-1.3310E-01	-2.5244E-01	-1.2554E-01	6.8725E-05	-1.1985E-01	-4.5177E-02	1.0371E-05
7.9887E-01	9.4165E-01	4.8901E-05	-2.9518E-01	-2.3172E-01	-7.7908E-02	4.1627E-05	7.5841E-02	-2.4568E-01	1.7660E-05
1.0202E+00	9.3579E-01	4.2983E-05	-3.4752E-01	-1.2412E-01	-4.6488E-02	3.6200E-05	-2.0677E-02	-2.1925E-01	1.2947E-05
1.3028E+00	9.5267E-01	3.9092E-05	-4.0829E-01	1.3969E-02	-3.1648E-02	3.5350E-05	-3.3629E-02	-2.1364E-01	1.2108E-05
1.6636E+00	9.6028E-01	3.3099E-05	-4.2421E-01	1.2603E-01	-1.3200E-02	3.1128E-05	-4.1713E-02	-2.0069E-01	7.3452E-06

Table F.2-11 Velocity measurements made at S/T = 0.05 with the UV system of the laser anemometer, plane 3

File E283770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 23
 density (kilograms per meter cubed) = 1.121614
 viscosity (meters squared per second) = 1.62877E-05
 Atmospheric pressure (Pascals) = 95327
 Velocity of undisturbed free stream (Uref, in m/s) = 27.51761
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094902E-03
 Estimated momentum thickness Reynolds number = 6918.223
 Location of traverse; X/T = -.4578 Z/T = -.8872 (Plane 3, S/T = 0.85)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-1.4133E-01		
2.4788E-03	-1.5874E-01		
4.2493E-03	-1.8307E-01		
6.3739E-03	-2.2223E-01	5.6340E-03	-3.2338E-03
9.2068E-03	-2.5222E-01	5.2826E-03	-5.6350E-04
1.2748E-02	-2.6466E-01	5.3540E-03	7.6139E-04
1.6997E-02	-2.5396E-01	3.9326E-03	3.3439E-04
2.2663E-02	-2.4501E-01	3.8113E-03	2.2877E-04
2.9745E-02	-2.4017E-01	3.6771E-03	2.8401E-04
3.9306E-02	-2.3681E-01	3.5913E-03	2.9524E-04
5.1700E-02	-2.2974E-01	3.2859E-03	1.4040E-04
6.6210E-02	-2.2302E-01	3.3759E-03	3.5669E-04
8.4986E-02	-2.1173E-01	3.1143E-03	3.1362E-04
1.0977E-01	-2.0769E-01	3.0119E-03	3.2378E-04
1.4093E-01	-1.9850E-01	2.7849E-03	3.4427E-04
1.8166E-01	-1.8847E-01	2.6149E-03	3.7014E-04
2.3194E-01	-1.8642E-01	2.6748E-03	5.9088E-04
2.9816E-01	-1.7837E-01	2.1574E-03	4.1500E-04
3.8031E-01	-1.6227E-01	8.2602E-04	-1.2727E-04
4.8654E-01	-1.5118E-01	3.4007E-04	9.3917E-05
6.2283E-01	-1.4706E-01	2.7889E-04	1.2226E-04
7.9568E-01	-1.4740E-01	2.2316E-04	4.6718E-05
1.0216E+00	-1.6614E-01		
1.2996E+00	-1.6215E-01	5.5929E-06	-1.3401E-05
1.6318E+00	-1.5431E-01		

Table F.2-12 Velocity measurements made at S/T = 0.85 with the UW system of the laser anemometer, plane 3

File E282770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.11759

viscosity (meters squared per second) = 1.634634E-05

Atmospheric pressure (Pascals) = 94985

Velocity of undisturbed free stream (Uref, in m/s) = 27.58585

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092874E-03

Estimated momentum thickness Reynolds number = 6907.075

Location of traverse; X/T = -.308 Z/T = -.7574 (Plane 3, S/T = 0.65)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-1.5851E-01		
2.1246E-03	-1.9933E-01		
3.1870E-03	-1.9839E-01		
4.9575E-03	-2.2264E-01	7.6074E-03	-3.5979E-03
6.0198E-03	-2.6767E-01	7.0418E-03	-2.5367E-03
8.1445E-03	-3.0747E-01	7.0194E-03	-8.0979E-04
1.0977E-02	-3.2967E-01	4.6046E-03	-3.2580E-04
1.4695E-02	-3.3603E-01	4.3466E-03	7.4836E-04
1.8768E-02	-3.2396E-01	4.1542E-03	8.0082E-04
2.4433E-02	-3.1060E-01	3.8062E-03	5.8224E-04
3.1516E-02	-3.0560E-01	3.7885E-03	5.5093E-04
4.1076E-02	-2.9811E-01	3.9872E-03	5.4846E-04
5.2762E-02	-2.7989E-01	3.5476E-03	1.6901E-04
6.7635E-02	-2.7426E-01	3.4653E-03	2.3360E-04
8.6756E-02	-2.6000E-01	3.2268E-03	1.3839E-04
1.1190E-01	-2.4699E-01	3.3224E-03	3.9843E-04
1.4271E-01	-2.3741E-01	2.9400E-03	2.3278E-04
1.8272E-01	-2.2077E-01	2.6885E-03	5.4545E-04
2.3371E-01	-2.1150E-01	2.5334E-03	4.5664E-04
2.9922E-01	-2.0578E-01	2.0040E-03	3.5848E-04
3.8208E-01	-1.9637E-01	8.6294E-04	-1.6420E-04
4.8831E-01	-1.9025E-01	4.0883E-04	1.3237E-04
6.2429E-01	-1.9488E-01	1.0770E-04	-1.7474E-05
7.9745E-01	-1.9584E-01	1.1953E-04	6.2579E-05
1.0188E+00	-1.9985E-01	8.0349E-05	2.0508E-06
1.3013E+00	-1.9447E-01	5.9803E-05	3.7139E-06
1.6622E+00	-1.7304E-01	1.0297E-04	7.9480E-05

Table F.2-13 Velocity measurements made at S/T = 0.65 with the UW system of the laser anemometer, plane 3

File E281770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.5

density (kilograms per meter cubed) = 1.120836

viscosity (meters squared per second) = 1.627773E-05

Atmospheric pressure (Pascals) = 95100

Velocity of undisturbed free stream (Uref, in m/s) = 27.50899

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.095159E-03

Estimated momentum thickness Reynolds number = 6920.727

Location of traverse; X/T = -.1957 Z/T = -.6553 (Plane 3 , S/T = 0.50)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.4788E-03	-2.1593E-01		
3.5411E-03	-2.6649E-01		
4.6034E-03	-2.9420E-01		
6.7280E-03	-3.6400E-01	1.0243E-02	-3.0114E-03
9.5609E-03	-4.2127E-01	7.6458E-03	5.3718E-04
1.3102E-02	-4.4163E-01	7.2880E-03	2.0603E-03
1.7351E-02	-4.3639E-01	5.7364E-03	1.7127E-03
2.3017E-02	-4.1268E-01	5.5940E-03	1.6233E-03
3.0099E-02	-4.0094E-01	5.5927E-03	1.6974E-03
3.9837E-02	-3.9243E-01	5.6552E-03	1.2957E-03
5.1346E-02	-3.5827E-01	4.9591E-03	7.9506E-04
6.6572E-02	-3.4005E-01	4.4126E-03	3.5541E-04
8.5340E-02	-3.1843E-01	4.1761E-03	3.9072E-04
1.1013E-01	-2.9992E-01	3.6979E-03	3.6960E-04
1.4129E-01	-2.8297E-01	3.1628E-03	2.0507E-04
1.8148E-01	-2.6380E-01	2.8223E-03	2.5789E-04
2.3265E-01	-2.5015E-01	2.5253E-03	4.7846E-04
2.9851E-01	-2.4585E-01	1.9824E-03	4.2021E-04
3.9102E-01	-2.3931E-01	9.1283E-04	-8.0393E-05
4.8761E-01	-2.3747E-01	3.9468E-04	1.5871E-04
6.2288E-01	-2.3149E-01	1.1359E-04	3.8872E-05
7.9603E-01	-2.3808E-01	1.1105E-04	1.8126E-05
1.0177E+00	-2.4225E-01	9.9695E-05	2.2075E-05
1.2999E+00	-2.4702E-01	6.1565E-05	
1.6609E+00	-2.3230E-01	6.5170E-05	-7.4519E-06

Table F.2-14 Velocity measurements made at S/T = 0.50 with the UW system of the laser anemometer, plane 3

File E280770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.5
 density (kilograms per meter cubed) = 1.108326
 viscosity (meters squared per second) = 1.654735E-05
 Atmospheric pressure (Pascals) = 94675
 Velocity of undisturbed free stream (Uref, in m/s) = 27.5575
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093716E-03
 Estimated momentum thickness Reynolds number = 6817.562
 Location of traverse; X/T = -.1208 Z/T = -.589 (Plane 3, S/T = 0.40)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	-2.7093E-01		
2.8329E-03	-2.2626E-01		
3.5411E-03	-2.5122E-01		
4.6034E-03	-2.6805E-01		
5.6657E-03	-3.1242E-01	1.8319E-02	-5.3957E-03
7.4363E-03	-3.4777E-01	2.0581E-02	-5.1208E-03
9.9150E-03	-4.5759E-01	1.4895E-02	2.0761E-03
1.2571E-02	-5.0993E-01	1.2567E-02	3.4981E-03
1.6289E-02	-5.3614E-01	1.2027E-02	4.1779E-03
2.0538E-02	-5.3397E-01	1.0788E-02	2.9898E-03
2.6204E-02	-5.0635E-01	9.2332E-03	4.1242E-03
3.3286E-02	-4.8659E-01	1.0030E-02	4.3178E-03
4.5105E-02	-4.3882E-01	1.1007E-02	4.2739E-03
5.5064E-02	-4.3891E-01	9.9300E-03	4.1265E-03
6.9051E-02	-4.1903E-01	9.2580E-03	3.4029E-03
8.8173E-02	-3.8095E-01	6.5692E-03	1.4256E-03
1.1296E-01	-3.4634E-01	4.8968E-03	8.5360E-04
1.4412E-01	-3.5725E-01	3.5518E-03	6.2920E-04
1.8414E-01	-2.9956E-01	3.1041E-03	3.2078E-04
2.3548E-01	-2.8709E-01	2.7074E-03	5.1790E-04
3.0205E-01	-2.7890E-01	2.0315E-03	4.0015E-04
3.8350E-01	-2.7611E-01	1.5395E-03	4.3713E-04
4.8973E-01	-2.6689E-01	2.7607E-04	6.9063E-05
6.2571E-01	-2.7736E-01	1.8290E-04	5.7516E-05
7.9887E-01	-2.8784E-01	1.4712E-04	5.1032E-06
1.0202E+00	-2.8732E-01	3.3895E-05	-2.0091E-05
1.3028E+00	-2.8964E-01	1.1072E-04	-1.0128E-05
1.6636E+00	-2.7217E-01		

Table F.2-15 Velocity measurements made at S/T = 0.40 with the UW system of the laser anemometer, plane 3

File E279770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24
 density (kilograms per meter cubed) = 1.10427
 viscosity (meters squared per second) = 1.65866E-05
 Atmospheric pressure (Pascals) = 94170
 Velocity of undisturbed free stream (Uref, in m/s) = 27.56189
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093586E-03
 Estimated momentum thickness Reynolds number = 6802.297
 Location of traverse; X/T = -.0833 Z/T = -.5559 (Plane 3 , S/T = 0.35)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-2.6265E-01		
1.7705E-03	-2.7174E-01		
2.4788E-03	-2.8252E-01		
3.5411E-03	-3.2589E-01		
5.4887E-03	-3.9194E-01	2.3481E-02	-2.5004E-03
7.4363E-03	-4.8843E-01	2.0907E-02	6.1218E-03
1.0269E-02	-5.5486E-01	2.0246E-02	1.0238E-02
1.3810E-02	-5.7259E-01	1.9833E-02	1.0817E-02
1.8059E-02	-5.7365E-01	1.8452E-02	9.8042E-03
2.3725E-02	-5.7487E-01	1.8196E-02	9.5791E-03
3.0807E-02	-5.7370E-01	1.8349E-02	1.0021E-02
4.0368E-02	-5.6848E-01	2.0144E-02	1.0069E-02
5.2762E-02	-5.1730E-01	1.8211E-02	8.6107E-03
6.6926E-02	-4.8979E-01	1.7564E-02	6.2972E-03
8.6048E-02	-4.3302E-01	1.4180E-02	3.0129E-03
1.1084E-01	-3.8809E-01	9.4161E-03	2.7327E-03
1.4235E-01	-3.2947E-01	3.9429E-03	6.6239E-04
1.8201E-01	-3.1157E-01	2.8815E-03	4.4467E-04
2.3477E-01	-3.0177E-01	2.3753E-03	4.7325E-04
2.9816E-01	-3.0007E-01	2.0713E-03	4.3644E-04
3.8137E-01	-2.9790E-01	8.3124E-04	-8.7780E-05
4.8761E-01	-3.0485E-01	3.2316E-04	8.8986E-05
6.2358E-01	-3.0078E-01	1.3160E-04	5.4304E-05
7.9674E-01	-3.1559E-01	9.3576E-05	-1.8961E-05
1.0181E+00	-3.1810E-01	5.6667E-05	-1.8236E-05
1.3006E+00	-3.1970E-01	6.5031E-05	1.3690E-05
1.6615E+00	-3.0789E-01	1.0470E-04	1.8908E-05

Table F.2-16 Velocity measurements made at S/T = 0.35 with the UW system of the laser anemometer, plane 3

File E278770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.5
 density (kilograms per meter cubed) = 1.123736
 viscosity (meters squared per second) = 1.623573E-05
 Atmospheric pressure (Pascals) = 95346
 Velocity of undisturbed free stream (Uref, in m/s) = 27.52457
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094695E-03
 Estimated momentum thickness Reynolds number = 6941.772
 Location of traverse; X/T = -.0459 Z/T = -.5228001 (Plane 3, S/T = 0.30)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.1870E-03	-3.3808E-01		
4.0722E-03	-3.9451E-01		
4.9575E-03	-4.2337E-01	2.6079E-02	1.3335E-03
6.0198E-03	-5.0320E-01	2.8880E-02	1.0716E-02
7.7904E-03	-5.5504E-01	3.0634E-02	1.1508E-02
9.2068E-03	-5.9639E-01	3.1733E-02	2.0490E-02
1.0977E-02	-6.1921E-01	3.1202E-02	1.9712E-02
1.3456E-02	-6.4323E-01	2.9980E-02	2.2260E-02
1.7351E-02	-6.7084E-01	2.9032E-02	2.1960E-02
2.1424E-02	-6.9192E-01	2.6379E-02	2.0780E-02
2.6912E-02	-6.8607E-01	2.4172E-02	1.6797E-02
3.5057E-02	-6.2431E-01	2.2260E-02	1.2741E-02
4.3555E-02	-6.2625E-01	2.1039E-02	1.0262E-02
5.5241E-02	-5.5887E-01	2.0380E-02	7.9055E-03
7.0113E-02	-4.9548E-01	2.0554E-02	6.1980E-03
8.9589E-02	-4.2972E-01	1.6191E-02	3.0451E-03
1.1455E-01	-3.9557E-01	1.0027E-02	1.7173E-03
1.4518E-01	-3.4209E-01	3.6288E-03	1.1184E-03
1.8520E-01	-3.3820E-01	2.5137E-03	9.2738E-04
2.3761E-01	-3.2656E-01	2.1951E-03	5.9015E-04
3.0312E-01	-3.2754E-01	1.7046E-03	2.6041E-04
3.8562E-01	-3.3072E-01	7.4623E-04	-1.2473E-04
4.9079E-01	-3.3645E-01	2.6982E-04	6.5245E-05
6.2925E-01	-3.4394E-01	1.1185E-04	7.1574E-05
7.9993E-01	-3.4120E-01	1.2394E-04	-1.4293E-05
1.0212E+00	-3.5345E-01	1.3208E-04	-2.4116E-05
1.3038E+00	-3.4703E-01	1.1343E-05	-4.7759E-06
1.6647E+00	-3.3962E-01	6.8471E-05	1.6237E-05

Table F.2-17 Velocity measurements made at S/T = 0.30 with the UW system of the laser anemometer, plane 3

File E277770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22
 density (kilograms per meter cubed) = 1.123149
 viscosity (meters squared per second) = 1.622298E-05
 Atmospheric pressure (Pascals) = 95135
 Velocity of undisturbed free stream (Uref, in m/s) = 27.35028
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = .0040999
 Estimated momentum thickness Reynolds number = 6912.014
 Location of traverse; X/T = -.0084 Z/T = -.4896 (Plane 3, S/T = 0.25)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	-3.5484E-01		
2.8329E-03	-3.7421E-01		
3.7181E-03	-4.3127E-01		
4.9575E-03	-5.9544E-01	3.9570E-02	2.3960E-02
6.0198E-03	-6.4758E-01	5.0597E-02	2.8821E-02
7.6133E-03	-7.1444E-01	4.2211E-02	2.8314E-02
9.7380E-03	-7.5870E-01	3.8703E-02	2.6960E-02
1.2394E-02	-7.8707E-01	3.1808E-02	2.2546E-02
1.5935E-02	-8.0016E-01	2.6625E-02	1.8506E-02
2.0184E-02	-8.0751E-01	2.1303E-02	1.2935E-02
2.5850E-02	-7.8791E-01	1.6865E-02	8.4997E-03
3.2932E-02	-7.3990E-01	1.8618E-02	8.0256E-03
4.2493E-02	-6.9970E-01	1.9683E-02	6.6748E-03
5.4178E-02	-6.1316E-01	1.9885E-02	6.1181E-03
6.9051E-02	-5.1051E-01	2.1044E-02	5.5497E-03
8.8350E-02	-4.5001E-01	1.8025E-02	3.8600E-03
1.1296E-01	-3.7431E-01	7.6915E-03	1.8444E-03
1.4518E-01	-3.6824E-01	4.1447E-03	1.1456E-03
1.8414E-01	-3.6713E-01	3.0308E-03	6.0419E-04
2.3513E-01	-3.6675E-01	2.5079E-03	7.1820E-04
3.0028E-01	-3.6227E-01	2.0913E-03	8.5199E-04
3.8456E-01	-3.6415E-01	7.7142E-04	-1.1930E-04
4.9044E-01	-3.7270E-01	4.3458E-04	7.2043E-05
6.2712E-01	-3.8097E-01		
7.9887E-01	-3.9137E-01	9.7983E-05	1.7929E-05
1.0202E+00	-3.9929E-01	1.0269E-04	8.3921E-06
1.3031E+00	-3.8382E-01	4.0895E-05	
1.6636E+00	-3.8312E-01	1.6109E-04	

Table F.2-18 Velocity measurements made at S/T = 0.25 with the UW system of the laser anemometer, plane 3

File E276770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.108883

viscosity (meters squared per second) = 1.647469E-05

Atmospheric pressure (Pascals) = 94245

Velocity of undisturbed free stream (Uref, in m/s) = 27.56807

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.093402E-03

Estimated momentum thickness Reynolds number = 6849.731

Location of traverse; X/T = .029 Z/T = -.4565 (Plane 3, S/T = 0.20)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.7705E-03	-4.0129E-01		
2.4788E-03	-4.4175E-01		
3.1870E-03	-5.4464E-01		
3.8952E-03	-6.5743E-01		
4.6034E-03	-7.5375E-01		
6.7280E-03	-8.3788E-01	2.3814E-02	1.3495E-02
7.4363E-03	-8.4966E-01	1.9584E-02	1.0469E-02
9.7380E-03	-8.5905E-01	1.8724E-02	9.1237E-03
1.2571E-02	-8.5346E-01	1.5023E-02	7.7609E-03
1.5935E-02	-8.3076E-01	1.2222E-02	6.4137E-03
2.0184E-02	-8.0210E-01	1.0220E-02	4.9065E-03
2.5850E-02	-7.6911E-01	1.0233E-02	4.8439E-03
3.3109E-02	-7.2228E-01	1.2847E-02	5.9711E-03
4.2493E-02	-6.7998E-01	1.3783E-02	4.8732E-03
5.4178E-02	-6.0487E-01	1.3346E-02	5.7215E-03
6.9228E-02	-5.3211E-01	1.4031E-02	5.9312E-03
8.8527E-02	-4.6644E-01	1.2746E-02	4.2667E-03
1.1331E-01	-4.0963E-01	5.6385E-03	1.0920E-03
1.4412E-01	-4.0375E-01	3.3873E-03	1.1214E-03
1.8414E-01	-4.0936E-01	2.6374E-03	9.1322E-04
2.3513E-01	-4.0391E-01	2.1545E-03	7.7599E-04
3.0028E-01	-3.9745E-01	1.6888E-03	6.6416E-04
3.8350E-01	-4.0818E-01	1.1580E-03	4.9830E-04
4.9009E-01	-4.1780E-01	7.1522E-04	1.1539E-04
6.2571E-01	-4.3106E-01	7.2857E-04	4.4619E-04
7.9887E-01	-4.2257E-01		
1.0212E+00	-4.3719E-01	3.9858E-05	2.8259E-05
1.3031E+00	-4.2559E-01		
1.6636E+00	-4.3222E-01		

Table F.2-19 Velocity measurements made at S/T = 0.20 with the UW system of the laser anemometer, plane 3

File E275770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22
 density (kilograms per meter cubed) = 1.111225
 viscosity (meters squared per second) = 1.639706E-05
 Atmospheric pressure (Pascals) = 94125
 Velocity of undisturbed free stream (Uref, in m/s) = 27.52136
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094791E-03
 Estimated momentum thickness Reynolds number = 6872.831
 Location of traverse; X/T = .0665 Z/T = -.4234 (Plane 3 , S/T = 0.15)

Y/T	W/Uref	w2/Uref2	uw/Uref2
7.0822E-04	-4.7348E-01		
1.7705E-03	-5.7712E-01		
3.5411E-03	-8.1266E-01		
6.0198E-03	-8.6558E-01	9.7420E-03	6.0871E-03
8.4986E-03	-8.6848E-01	1.0125E-02	5.6492E-03
1.2040E-02	-8.3793E-01	8.2749E-03	4.7973E-03
1.6997E-02	-7.9802E-01	7.5254E-03	3.7831E-03
2.2663E-02	-7.6149E-01	7.2256E-03	3.2924E-03
2.9037E-02	-7.1364E-01	7.2341E-03	2.9349E-03
3.8598E-02	-6.7091E-01	6.8003E-03	2.2177E-03
5.0637E-02	-6.2620E-01	5.5340E-03	1.8842E-03
6.5156E-02	-5.6739E-01	6.1558E-03	2.3801E-03
8.4278E-02	-5.1243E-01	5.0256E-03	2.2469E-03
1.0907E-01	-4.8087E-01	3.7903E-03	1.4016E-03
1.4129E-01	-4.7224E-01	2.8119E-03	1.0785E-03
1.8024E-01	-4.6531E-01	2.5029E-03	9.2518E-04
2.3123E-01	-4.6089E-01	1.9491E-03	7.3178E-04
2.9639E-01	-4.5026E-01	9.7007E-04	4.5273E-04
3.7960E-01	-4.5762E-01	5.5243E-04	2.6533E-04
4.8584E-01	-4.7138E-01	1.7340E-04	4.1625E-05
6.2217E-01	-4.8793E-01	2.6115E-05	-1.7202E-05
7.9497E-01	-4.9881E-01	7.3613E-05	
1.0163E+00	-4.9201E-01	1.5296E-04	-2.9667E-06
1.2992E+00	-4.8114E-01		
1.6597E+00	-4.8274E-01		

Table F.2-20 Velocity measurements made at S/T = 0.15 with the UW system of the laser anemometer, plane 3

File E274770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.2

density (kilograms per meter cubed) = 1.110932

viscosity (meters squared per second) = 1.636701E-05

Atmospheric pressure (Pascals) = 93845

Velocity of undisturbed free stream (Uref, in m/s) = 27.50796

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.095189E-03

Estimated momentum thickness Reynolds number = 6882.764

Location of traverse; X/T = .1309 Z/T = -.3903 (Plane 3 , S/T = 0.1)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-5.7410E-01		
2.1246E-03	-5.7543E-01		
2.8329E-03	-6.4921E-01		
3.8952E-03	-8.2430E-01		
4.9575E-03	-8.7203E-01	9.1437E-03	1.0157E-03
6.5510E-03	-8.5267E-01	8.9542E-03	6.5053E-03
8.8527E-03	-8.4417E-01	8.0011E-03	4.4781E-03
1.1331E-02	-8.2099E-01	6.8535E-03	4.0654E-03
1.4873E-02	-8.0154E-01	6.6572E-03	2.0973E-03
1.9122E-02	-7.6516E-01	5.4642E-03	2.7942E-03
2.4965E-02	-7.3423E-01	4.9491E-03	5.5163E-05
3.1870E-02	-6.9332E-01	4.8445E-03	1.4984E-03
4.1431E-02	-6.6535E-01	4.2654E-03	1.6811E-03
5.3116E-02	-6.3576E-01	3.6047E-03	1.0267E-03
6.9405E-02	-6.0163E-01	3.6677E-03	1.0284E-03
8.7110E-02	-5.6697E-01	3.5197E-03	9.7556E-04
1.1261E-01	-5.3875E-01	3.1119E-03	8.1562E-04
1.4306E-01	-5.2753E-01	2.7971E-03	8.3550E-04
1.8307E-01	-5.3163E-01	2.2735E-03	6.5850E-04
2.3442E-01	-5.3505E-01	1.2815E-03	1.3827E-04
2.9922E-01	-5.1965E-01	9.2911E-04	3.4485E-04
3.8314E-01	-5.3225E-01	5.2530E-04	1.8006E-04
4.8902E-01	-5.4696E-01	1.1579E-04	-1.4107E-05
6.2465E-01	-5.6701E-01	1.2588E-04	-2.5086E-05
7.9780E-01	-5.5638E-01	1.7083E-05	
1.0191E+00	-5.5817E-01		
1.3017E+00	-5.4406E-01	1.3812E-04	
1.6629E+00	-5.3491E-01		

Table F.2-21 Velocity measurements made at S/T = 0.1 with the UW system of the laser anemometer, plane 5

File E273770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21

density (kilograms per meter cubed) = 1.111392

viscosity (meters squared per second) = 1.635165E-05

Atmospheric pressure (Pascals) = 93820

Velocity of undisturbed free stream (Uref, in m/s) = 27.53412

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094411E-03

Estimated momentum thickness Reynolds number = 6894.473

Location of traverse; X/T = .1414 Z/T = -.3571 (Plane 3, S/T = 0.05)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-6.0877E-01		
2.1246E-03	-7.2338E-01		
3.8952E-03	-8.7013E-01		
6.0198E-03	-8.6829E-01	8.4723E-03	5.0084E-03
8.8527E-03	-8.2321E-01	5.3298E-03	2.9034E-03
1.2394E-02	-8.0067E-01	5.0175E-03	2.4865E-03
1.6643E-02	-7.6823E-01	4.1800E-03	1.9553E-03
2.2663E-02	-7.4743E-01	3.8087E-03	1.3270E-03
2.9391E-02	-7.3249E-01	3.7128E-03	1.5804E-03
3.8952E-02	-7.0608E-01	3.6373E-03	1.1845E-03
5.0637E-02	-6.9572E-01	3.2824E-03	1.1222E-03
6.5864E-02	-6.6714E-01	3.2511E-03	1.2971E-03
8.4986E-02	-6.4297E-01	3.2330E-03	8.7395E-04
1.0942E-01	-6.4076E-01	2.8571E-03	5.2038E-04
1.4058E-01	-6.1789E-01	2.6954E-03	7.1917E-04
1.8059E-01	-6.3439E-01	2.1340E-03	4.6503E-04
2.3371E-01	-6.4378E-01	1.8566E-03	3.7929E-04
2.9710E-01	-6.0599E-01	8.2343E-04	2.4528E-04
3.8350E-01	-6.3131E-01	4.8536E-04	1.0616E-04
4.8654E-01	-6.4141E-01	2.4870E-04	3.5208E-05
6.2217E-01	-6.5615E-01	1.5046E-04	2.5022E-05
7.9533E-01	-6.5456E-01		
1.0343E+00	-6.2415E-01	6.2947E-05	-4.7456E-06
1.2992E+00	-6.1965E-01		
1.6601E+00	-6.1647E-01		

Table F.2-22 Velocity measurements made at S/T = 0.05 with the UW system of the laser anemometer, plane 3

File E310770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.114941

viscosity (meters squared per second) = 1.642785E-05

Atmospheric pressure (Pascals) = 95080

Velocity of undisturbed free stream (Uref, in m/s) = 27.54567

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094068E-03

Estimated momentum thickness Reynolds number = 6864.798

Location of traverse; X/T = -.1957 Z/T = -.6553 (Plane 3, S/T = 0.50)

Y/T	vw/Uref2
5.1346E-03	7.9517E-04
6.9051E-03	5.0085E-04
8.6756E-03	5.7691E-04
1.0800E-02	2.9350E-04
1.3633E-02	7.8594E-05
1.7174E-02	-4.9524E-06
2.1424E-02	-3.2420E-04
2.7089E-02	-2.3355E-04
3.4171E-02	-3.4212E-04
4.3732E-02	-1.5441E-04
5.5418E-02	2.3316E-05
7.0290E-02	-1.0410E-04
8.9412E-02	-4.0421E-05
1.1491E-01	1.5299E-05
1.4536E-01	-1.6843E-04
1.8538E-01	2.1582E-04
2.3637E-01	-1.4147E-04
3.0152E-01	1.6188E-05
3.8509E-01	-3.7585E-05
4.9097E-01	-2.4586E-04

Table F.2-23 Velocity measurements made at S/T = 0.50 with the VW system of the laser anemometer, plane 3

File E311770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.2
density (kilograms per meter cubed) = 1.11507
viscosity (meters squared per second) = 1.643448E-05
Atmospheric pressure (Pascals) = 95155
Velocity of undisturbed free stream (Uref, in m/s) = 27.54641
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094046E-03
Estimated momentum thickness Reynolds number = 6862.172
Location of traverse; X/T = -.0883 Z/T = -.5559 (Plane 3, S/T = 0.35)

Y/T	vw/Uref2
6.0198E-03	-4.6288E-04
6.7280E-03	-1.9758E-03
7.4363E-03	1.5943E-04
8.4986E-03	-1.4324E-03
1.0269E-02	-6.2165E-04
1.2748E-02	-2.7147E-03
1.5581E-02	-1.3575E-03
1.8768E-02	-3.5911E-03
2.2309E-02	-5.2866E-03
2.8683E-02	-8.0991E-03
3.5765E-02	-6.0843E-03
4.5326E-02	-6.8184E-03
5.7011E-02	-8.4696E-03
7.2238E-02	-6.6636E-03
9.1360E-02	-2.6324E-03
1.1579E-01	-2.3551E-03
1.4766E-01	-3.4098E-04
1.8697E-01	-1.2276E-04
2.3796E-01	-1.9712E-04
3.0312E-01	-1.9244E-04
3.8775E-01	-1.1155E-04
4.9292E-01	-1.9123E-04

Table F.2-24 Velocity measurements made at S/T = 0.35 with the VW system of the laser anemometer, plane 5

File E323770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.7

density (kilograms per meter cubed) = 1.104573

viscosity (meters squared per second) = 1.665512E-05

Atmospheric pressure (Pascals) = 94735

Velocity of undisturbed free stream (Uref, in m/s) = 27.63228

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091498E-03

Estimated momentum thickness Reynolds number = 6788.148

Location of traverse; X/T = -.0459 Z/T = -.5228001 (Plane 3, S/T = 0.30)

Y/T vw/Uref2

5.6657E-03	-2.9266E-03
6.3739E-03	-4.6507E-03
7.0822E-03	-3.2100E-04
7.7904E-03	-5.0838E-04
8.8527E-03	-4.5138E-03
1.0623E-02	-4.2552E-03
1.2748E-02	-5.5969E-03
1.5581E-02	-6.3539E-03
1.9122E-02	-4.6699E-03
2.3371E-02	-4.4762E-03
2.9037E-02	-8.8903E-03
3.6119E-02	-1.0081E-02
4.5680E-02	-8.3211E-03
5.7365E-02	-6.5497E-03
7.2238E-02	-7.6052E-03
9.1360E-02	-6.1929E-03
1.1615E-01	-2.7225E-03
1.4731E-01	-3.3003E-04
1.8732E-01	-1.4915E-04
2.3831E-01	-3.8721E-04
3.0524E-01	-3.5667E-04
3.8669E-01	-3.5057E-04

Table F.2-25 Velocity measurements made at S/T = 0.30 with the VW system of the laser anemometer, plane 3

File E312770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.105707

viscosity (meters squared per second) = 1.660802E-05

Atmospheric pressure (Pascals) = 94610

Velocity of undisturbed free stream (Uref, in m/s) = 27.56324

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093546E-03

Estimated momentum thickness Reynolds number = 6793.789

Location of traverse; X/T = -.00842 Z/T = -.4896 (Plane 3, S/T = 0.25)

Y/T	vw/Uref2
5.3116E-03	-2.9502E-03
6.0198E-03	-6.5649E-04
7.0822E-03	-2.6410E-03
8.8527E-03	-2.3115E-03
1.0977E-02	-4.5744E-03
1.3810E-02	-3.0883E-03
1.7351E-02	-1.9387E-03
2.1601E-02	-2.1951E-03
2.7620E-02	-4.5747E-03
3.4348E-02	-7.9934E-03
4.4618E-02	-9.2299E-03
5.6657E-02	-1.0235E-02
7.0467E-02	-8.5147E-03
8.9943E-02	-5.1091E-03
1.1438E-01	-1.8017E-02
1.4554E-01	-5.2127E-04
1.8555E-01	-9.8521E-05
2.3654E-01	-1.6679E-05
3.0170E-01	-1.1571E-04
3.8527E-01	-1.2209E-04
4.913E-01	-1.9732E-04

Table F.2-26 Velocity measurements made at S/T = 0.25 with the VW system of the laser anemometer, plane 3

File E322770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 26

density (kilograms per meter cubed) = 1.107425

viscosity (meters squared per second) = 1.662507E-05

Atmospheric pressure (Pascals) = 95075

Velocity of undisturbed free stream (Uref, in m/s) = 27.60336

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092355E-03

Estimated momentum thickness Reynolds number = 6794.724

Location of traverse; X/T = .029 Z/T = -.4565 (Plane 3, S/T = 0.20)

Y/T	vw/Uref2
7.0822E-03	-1.6361E-03
8.8527E-03	-1.2637E-03
1.0977E-02	-1.9128E-03
1.3810E-02	-1.4387E-03
1.7351E-02	-1.9698E-03
2.1601E-02	-2.0156E-03
2.7266E-02	-2.3039E-03
3.4346E-02	-5.6391E-03
4.3909E-02	-4.6886E-03
5.5595E-02	-1.7253E-03
7.0822E-02	-3.3757E-04
8.9589E-02	5.0202E-04
1.1438E-01	-4.2966E-04
1.4589E-01	-1.5197E-04
1.8591E-01	-1.1638E-04
2.3654E-01	-1.5588E-04
3.0170E-01	-2.9485E-04
3.8492E-01	-3.9724E-04

Table F.2-27 Velocity measurements made at S/T = 0.20 with the VW system of the laser anemometer, plane 3

File E320770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.8

density (kilograms per meter cubed) = 1.110614

viscosity (meters squared per second) = 1.656881E-05

Atmospheric pressure (Pascals) = 95285

Velocity of undisturbed free stream (Uref, in m/s) = 27.58964

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.092762E-03

Estimated momentum thickness Reynolds number = 6815.084

Location of traverse; $X/T = .0665$ $Z/T = -.4234$ (Plane 3, $S/T = 0.15$)

Y/T	vw/Uref2
5.6657E-03	-1.0855E-03
7.4363E-03	-1.3752E-03
9.5609E-03	-1.3330E-03
1.2394E-02	-9.7100E-04
1.5935E-02	-8.2371E-04
2.0184E-02	-6.3356E-04
2.5850E-02	8.0010E-05
3.2932E-02	3.4099E-04
4.2493E-02	4.0643E-04
5.4533E-02	1.9159E-04
6.9051E-02	-2.8498E-04
8.8173E-02	-8.8040E-05
1.1296E-01	-1.0079E-04
1.4483E-01	8.3443E-05
1.8414E-01	-1.0543E-05
2.3584E-01	-1.0599E-04
3.0028E-01	-6.1445E-04
3.8350E-01	-2.4144E-04

Table F.2-28 Velocity measurements made at $S/T = 0.15$ with the VW system of the laser anemometer, plane 3

File E321770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 26

density (kilograms per meter cubed) = 1.107192

viscosity (meters squared per second) = 1.662857E-05

Atmospheric pressure (Pascals) = 95055

Velocity of undisturbed free stream (Uref, in m/s) = 27.62884

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = .0040916

Estimated momentum thickness Reynolds number = 6798.31

Location of traverse; X/T = .1039 Z/T = -.3903 (Plane 3, S/T = 0.10)

Y/T	v_w/U_{ref}^2
5.6657E-03	-1.9034E-03
7.4363E-03	-1.5208E-03
9.5609E-03	-1.4627E-03
1.2748E-02	-6.5139E-05
1.5935E-02	-5.4769E-04
2.0184E-02	-3.0909E-04
2.5850E-02	3.8648E-04
3.2932E-02	3.9573E-04
4.2493E-02	2.7079E-04
5.4178E-02	2.8883E-04
6.9405E-02	1.9358E-04
8.9589E-02	-1.0523E-04
1.1296E-01	-7.9514E-05
1.4483E-01	-2.4700E-04
1.8414E-01	-1.4488E-04
2.3513E-01	-4.3255E-04
3.0064E-01	-2.8859E-04
3.8492E-01	-2.1190E-04

Table F.2-29 Velocity measurements made at S/T = 0.10 with the VW system of the laser anemometer, plane 3

File E314770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 26.2

density (kilograms per meter cubed) = 1.099177

viscosity (meters squared per second) = 1.675845E-05

Atmospheric pressure (Pascals) = 94430

Velocity of undisturbed free stream (Uref, in m/s) = 27.52952

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094548E-03

Estimated momentum thickness Reynolds number = 6726.215

Location of traverse; X/T = .1414 Z/T = -.3571 (Plane 3, S/T = 0.05)

Y/T	vw/Uref2
4.9575E-03	8.5025E-04
5.6657E-03	-1.6999E-05
6.7280E-03	-7.1264E-04
8.4986E-03	-3.6276E-04
1.0623E-02	-8.7441E-05
1.3456E-02	1.4084E-04
1.6997E-02	1.8940E-04
2.1246E-02	2.9737E-04
2.6912E-02	2.4400E-04
3.3994E-02	4.5624E-04
4.3555E-02	3.0744E-04
5.5241E-02	-1.6059E-04
7.0113E-02	1.3327E-04
8.9235E-02	-1.4415E-04
1.1402E-01	-1.0176E-04
1.4766E-01	-2.1563E-04
1.8555E-01	-3.7990E-04
2.3619E-01	-4.8341E-04
3.0135E-01	-3.3509E-04
3.8456E-01	-3.2296E-04
4.9079E-01	-3.1773E-04

Table F.2-30 Velocity measurements made at S/T = 0.05 with the VW system of the laser anemometer, plane 3

F.3 LDV MEASUREMENTS IN PLANE 4

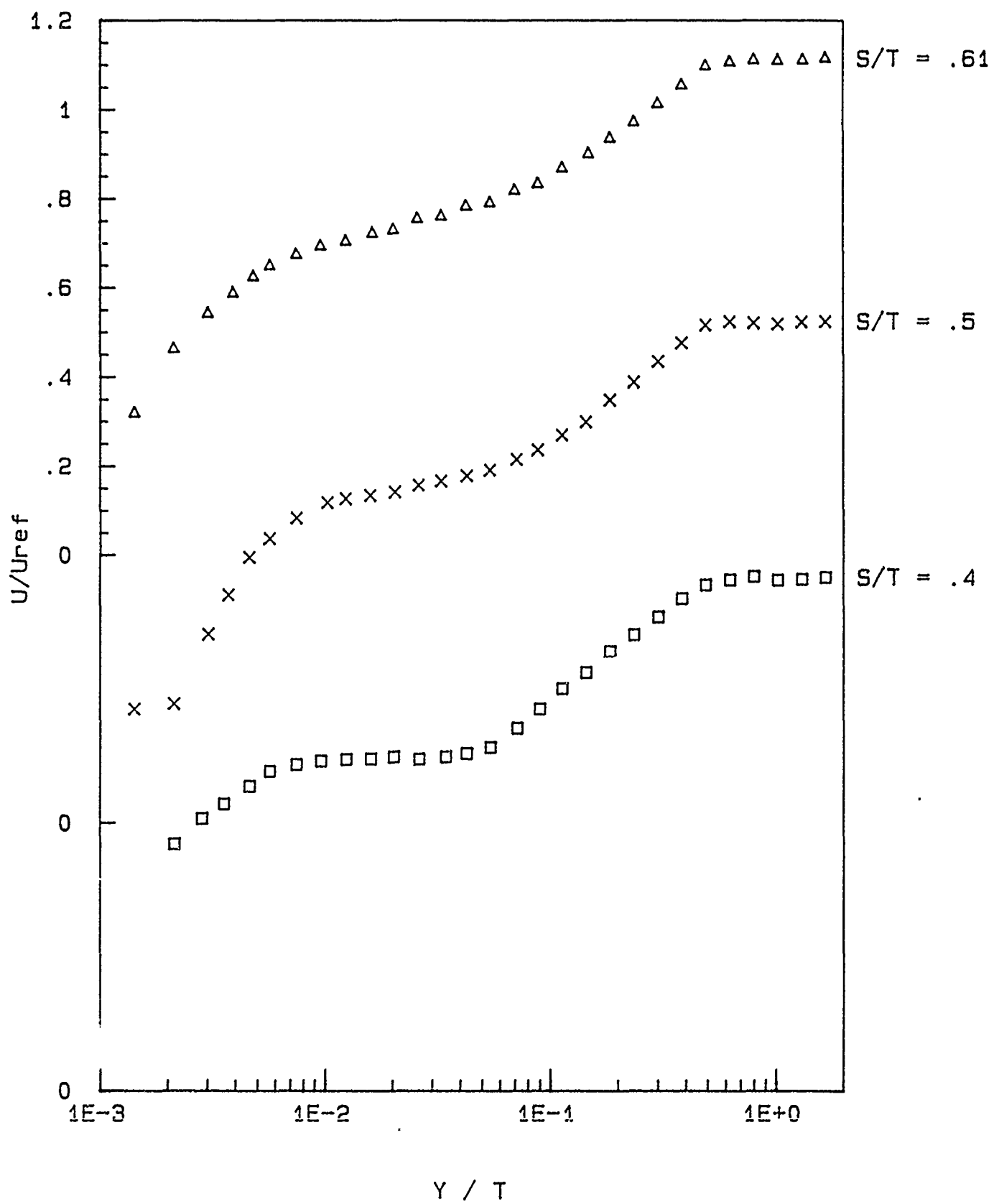


Figure F.3-1(a) Profiles of mean-velocity component U , plane 4.

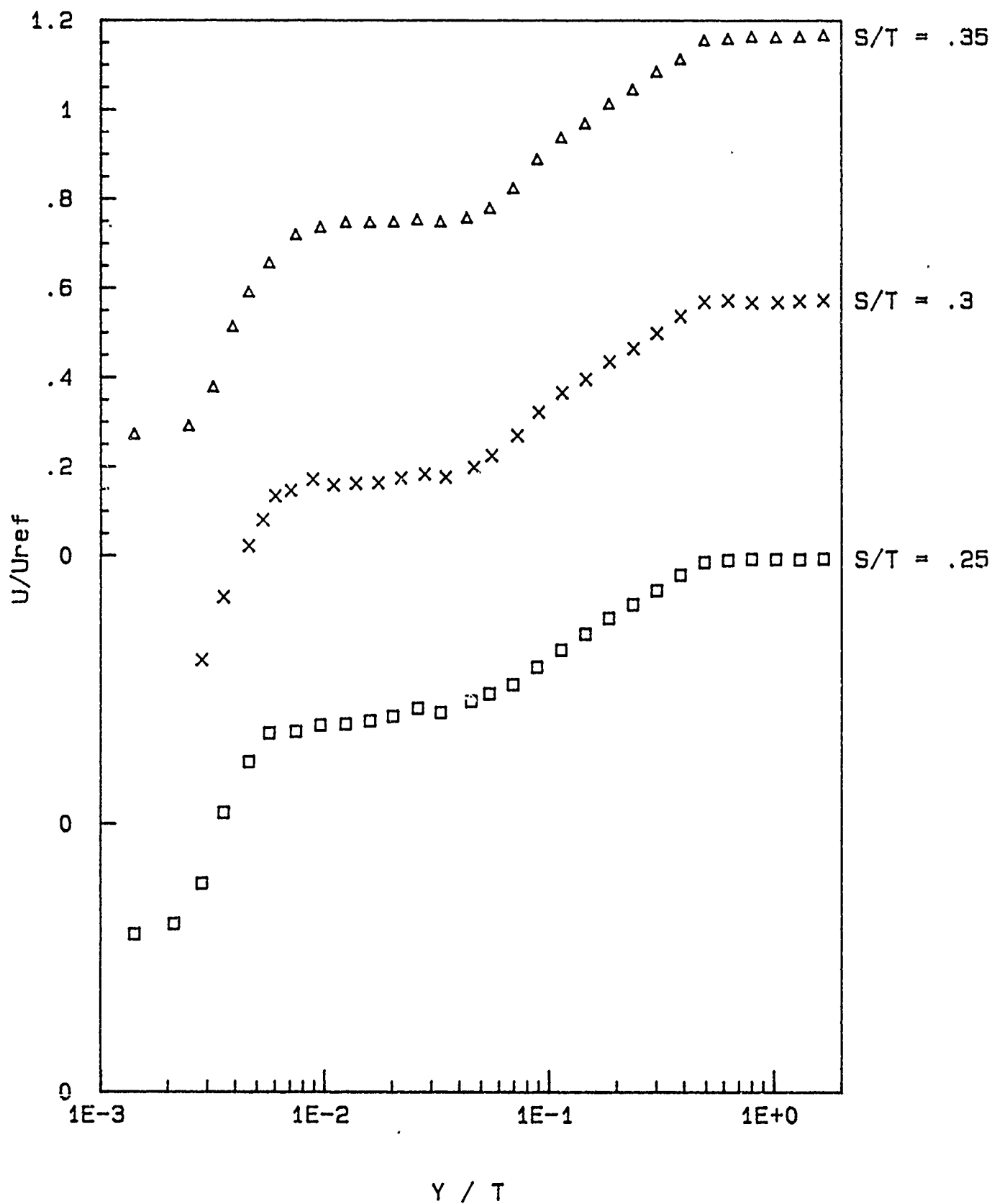


Figure F.3-1(b) Profiles of mean-velocity component U , plane 4.

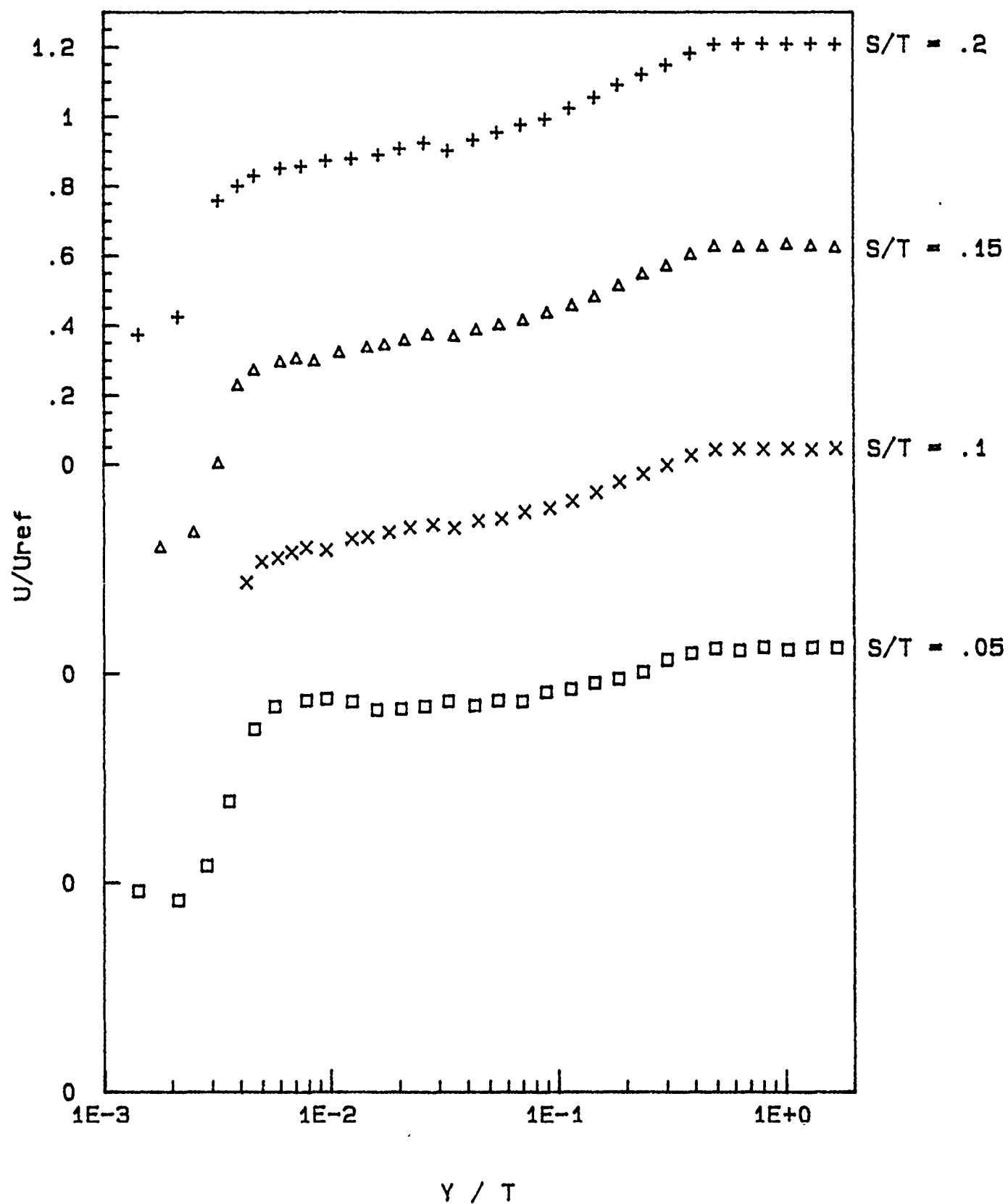


Figure F.3-1(c) Profiles of mean-velocity component U, plane 4.

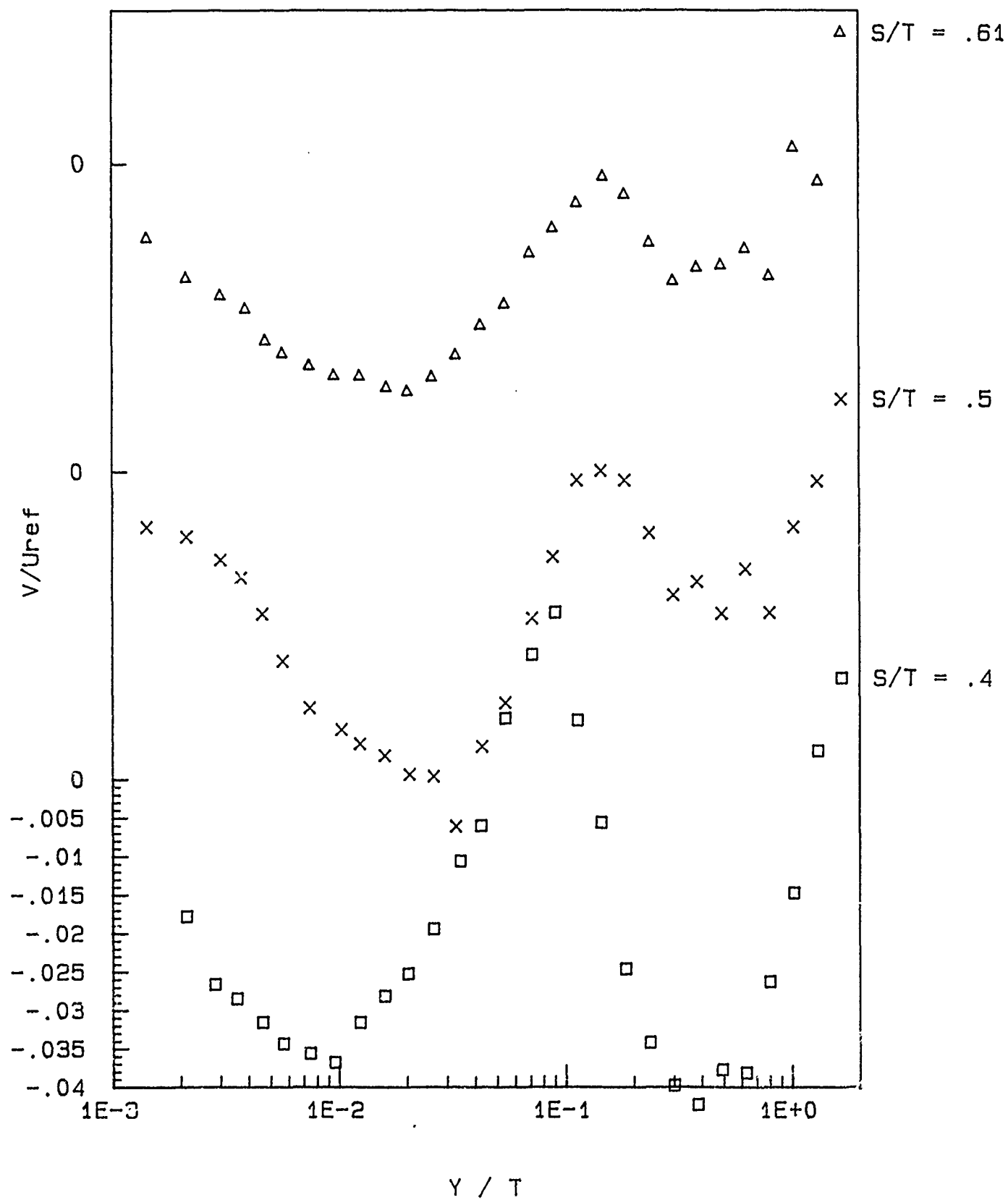


Figure F.3-2(a) Profiles of mean-velocity component V , plane 4.

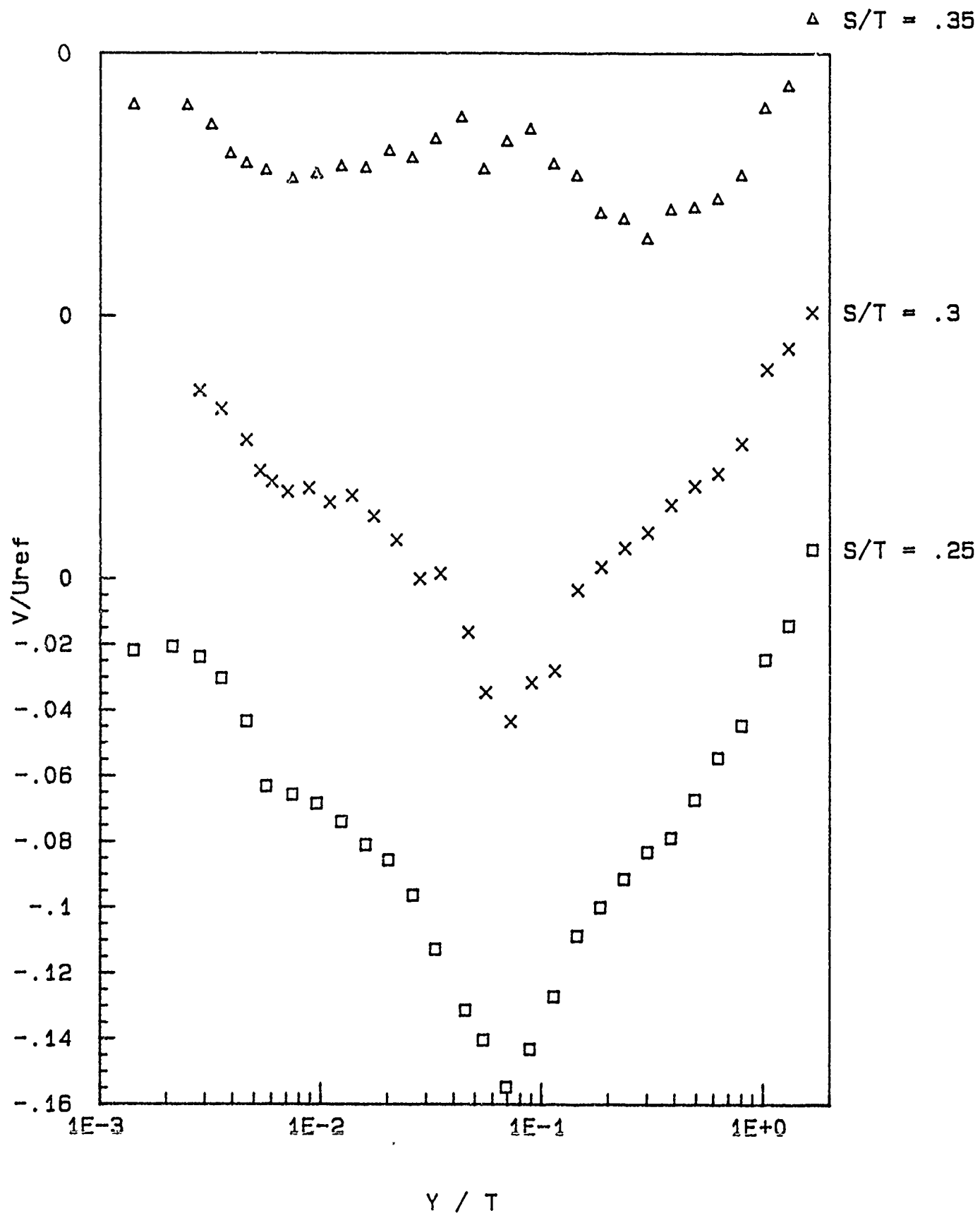


Figure F.3-2(b) Profiles of mean-velocity component V , plane 4.

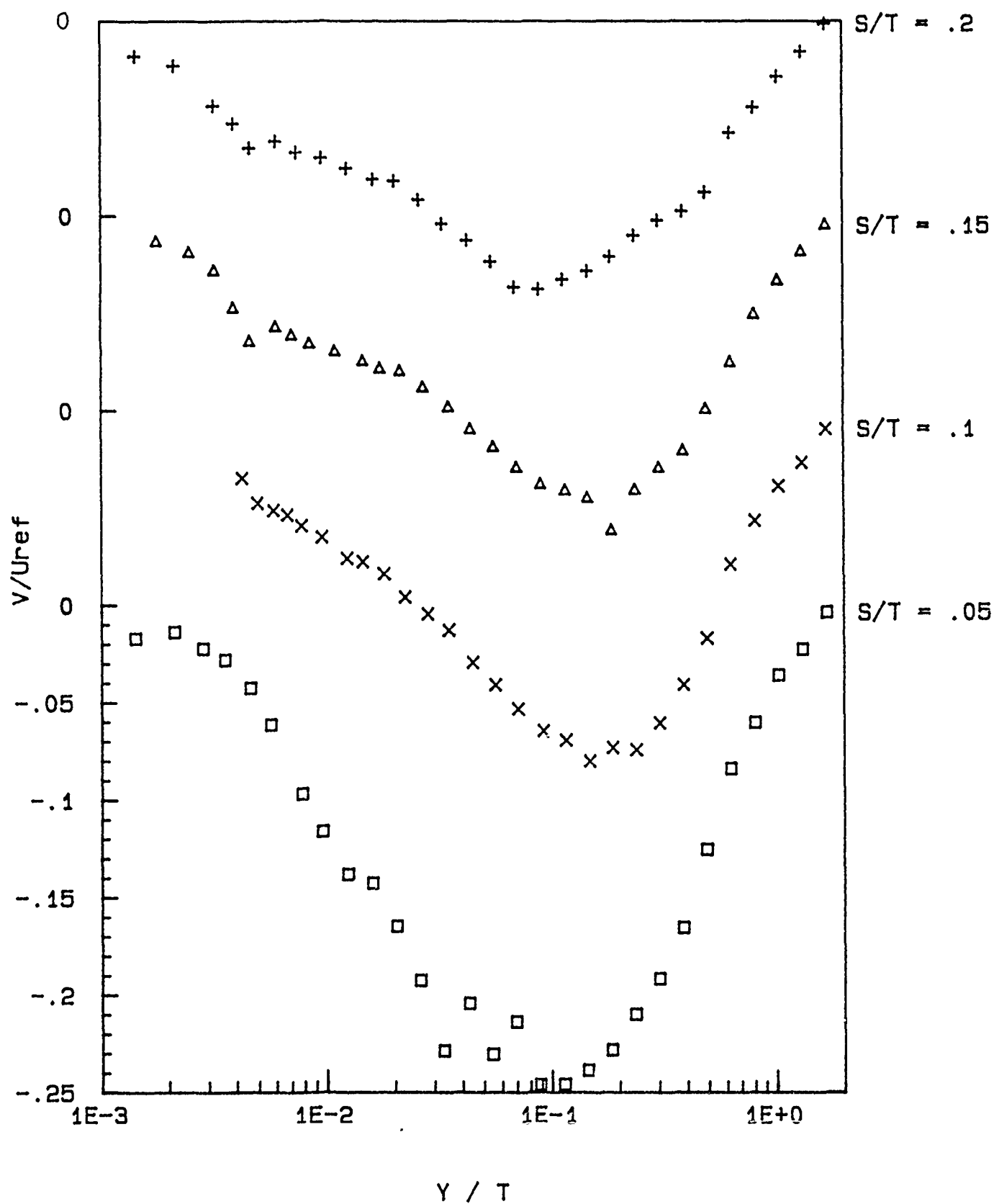


Figure F.3-2(c) Profiles of mean-velocity component V , plane 4.

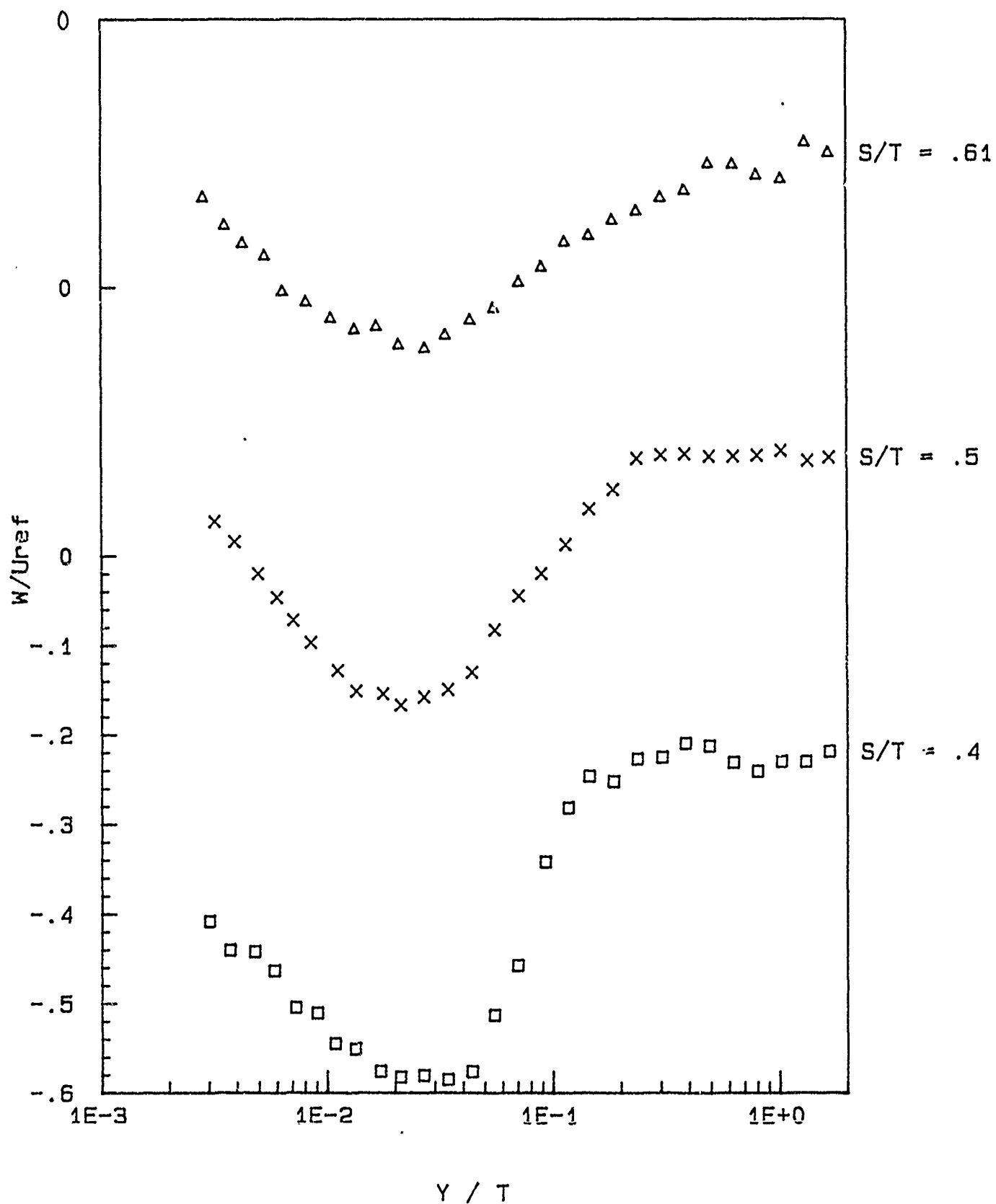


Figure F.3-3(a) Profiles of mean-velocity component W , plane 4.

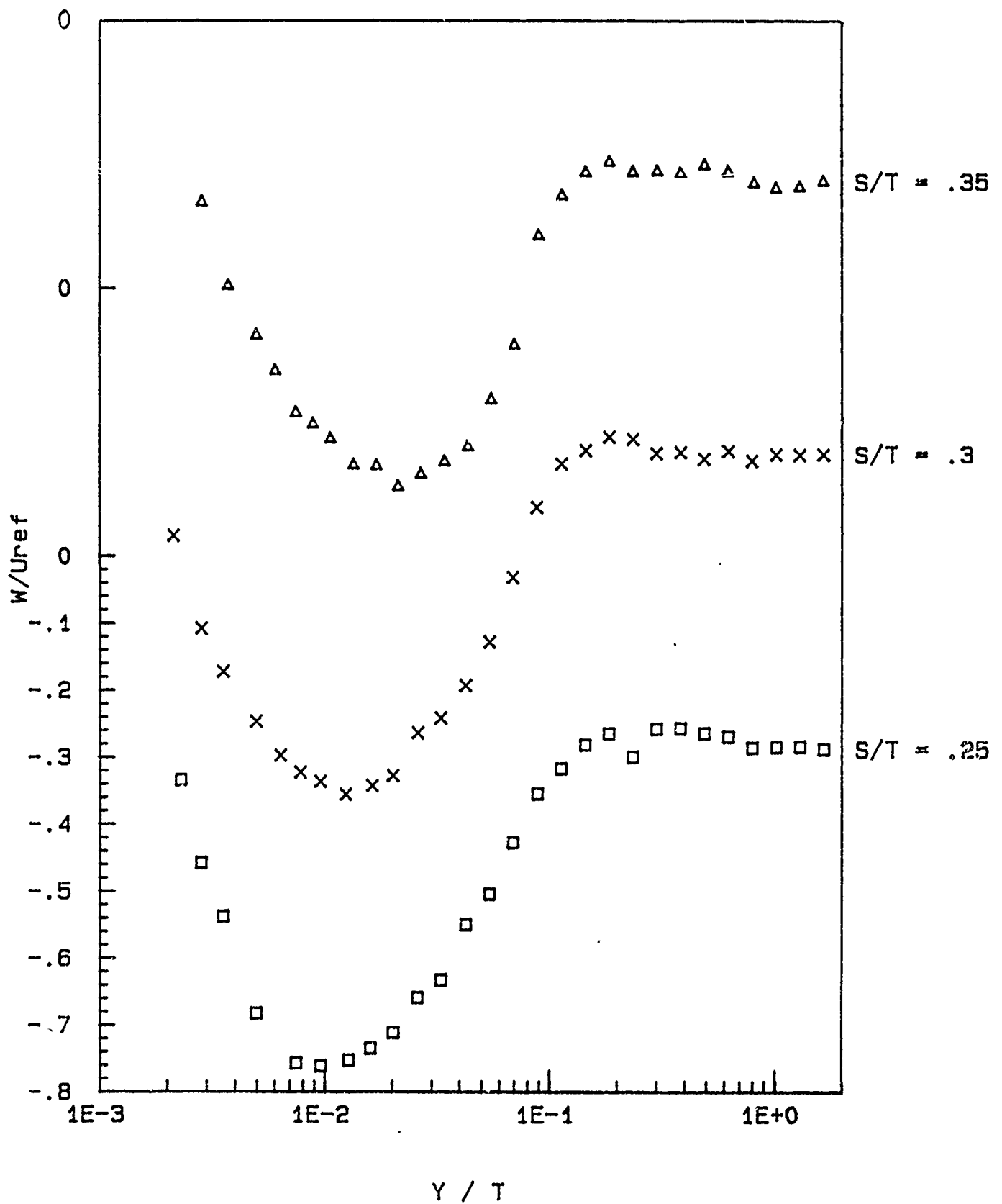


Figure F.3-3(b) Profiles of mean-velocity component W , plane 4.

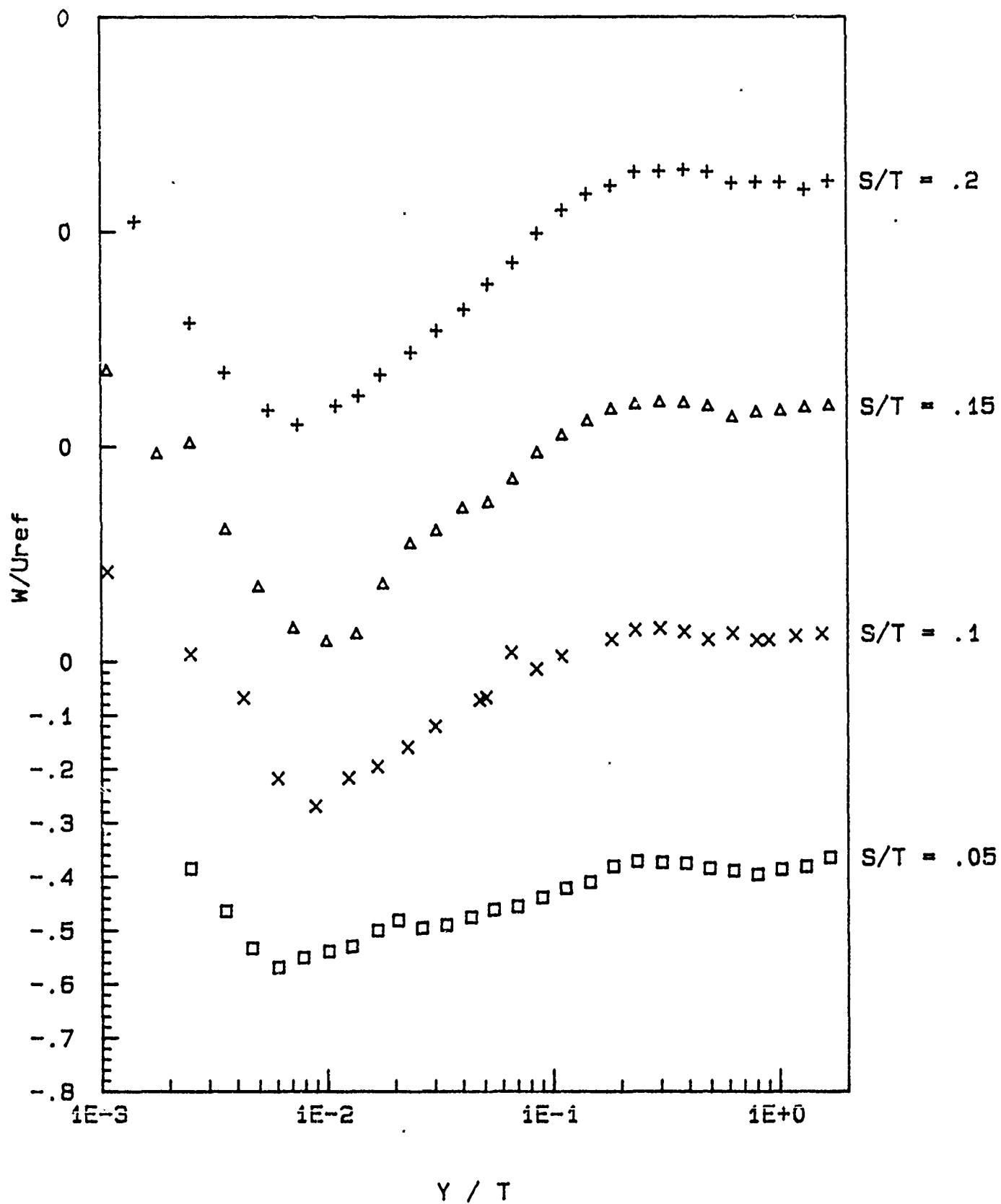


Figure F.3-3(c) Profiles of mean-velocity component W , plane 4.

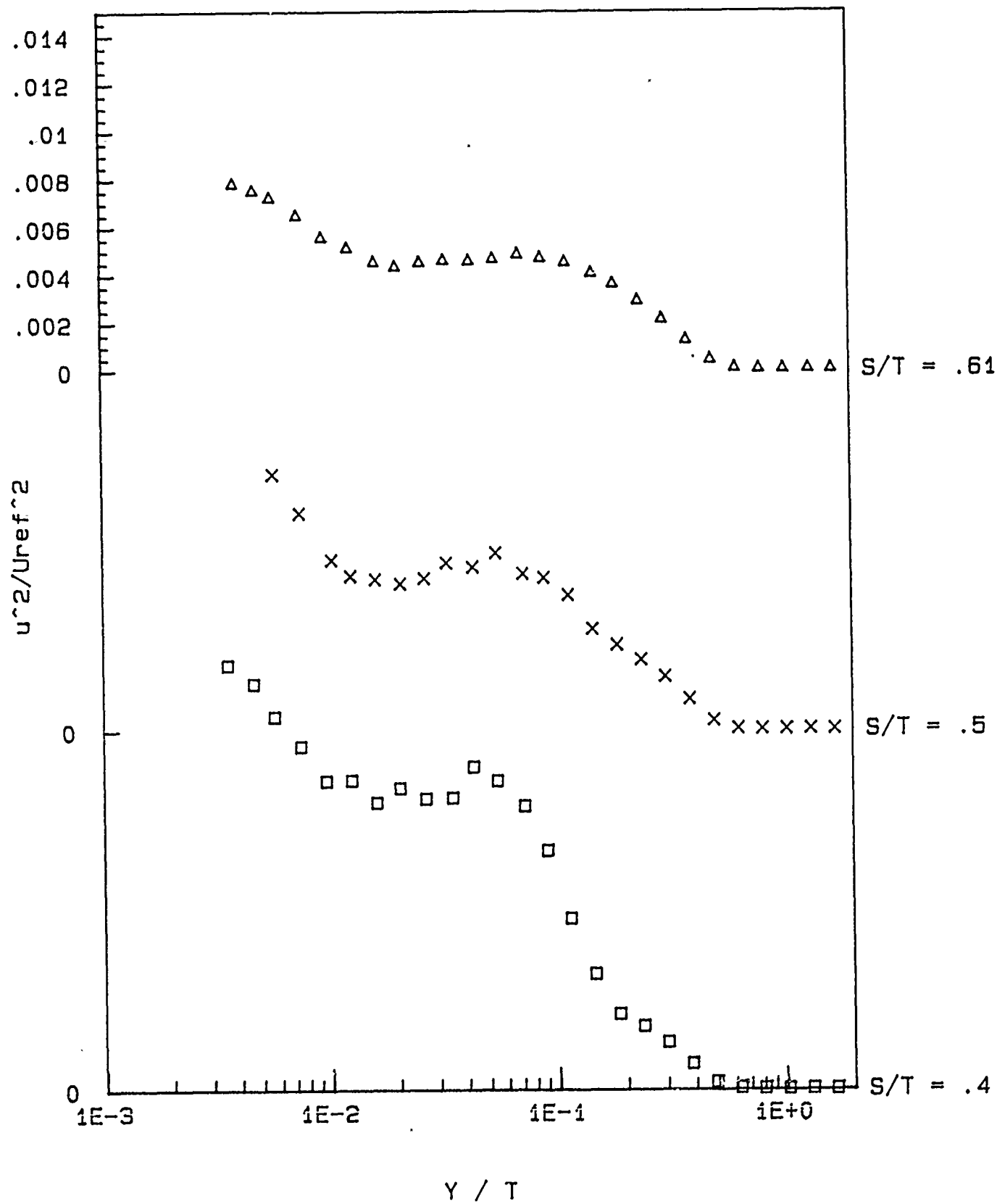


Figure F.3-4(a) Profiles of U-component of turbulence normal stress, plane 4.

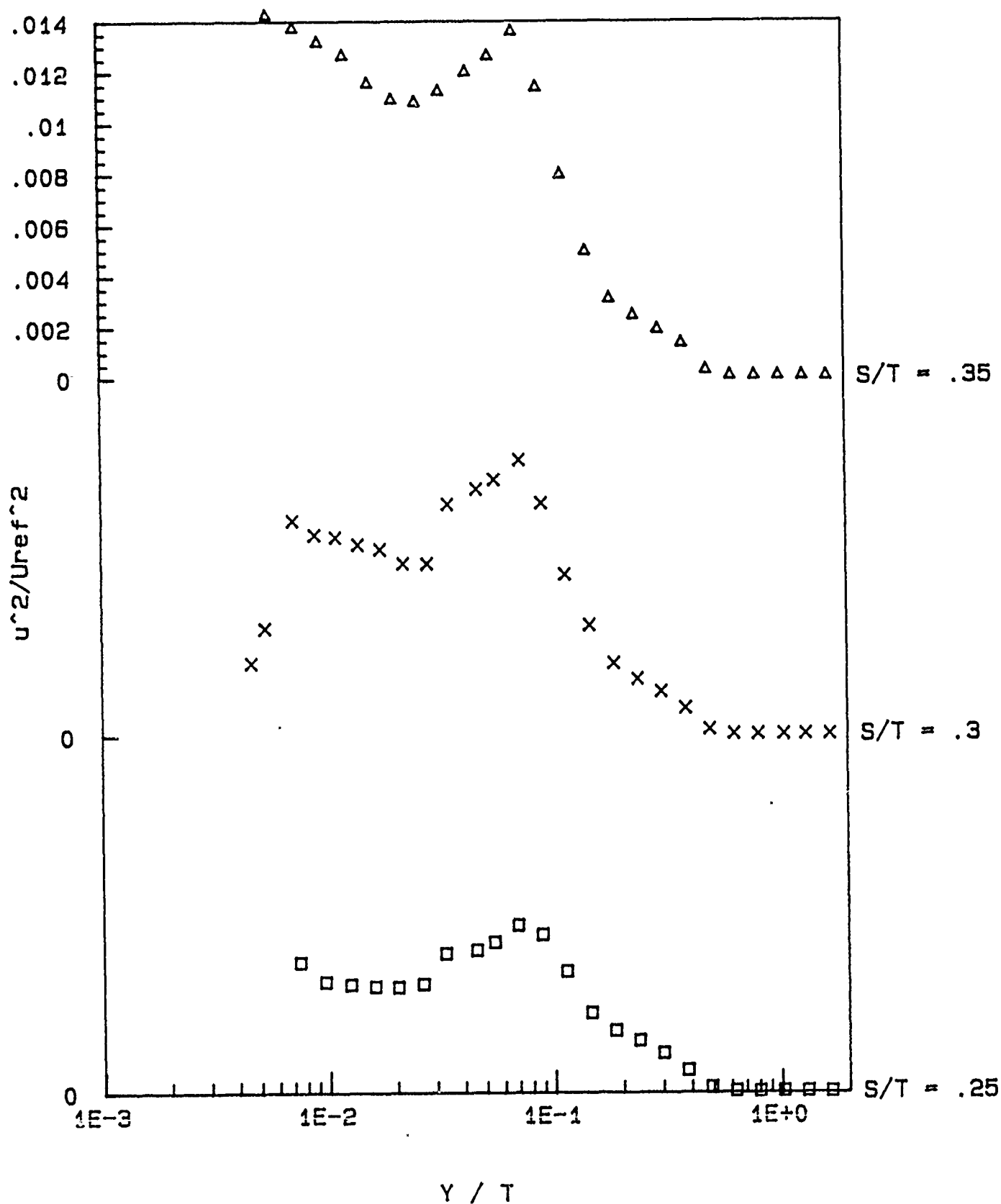


Figure F.3-4(b) Profiles of U-component of turbulence normal stress, plane 4.

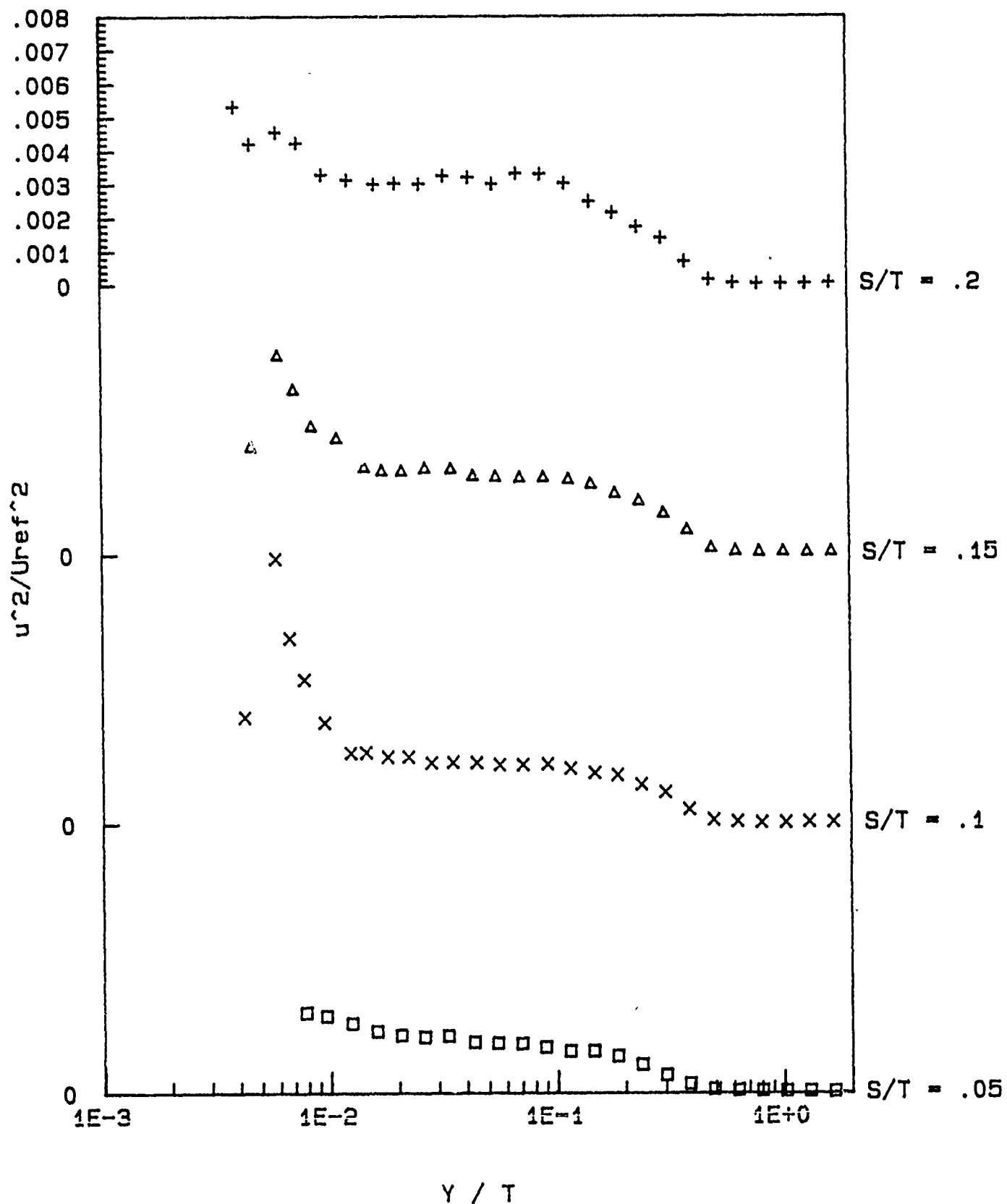


Figure F.3-4(c) Profiles of U-component of turbulence normal stress, plane 4.

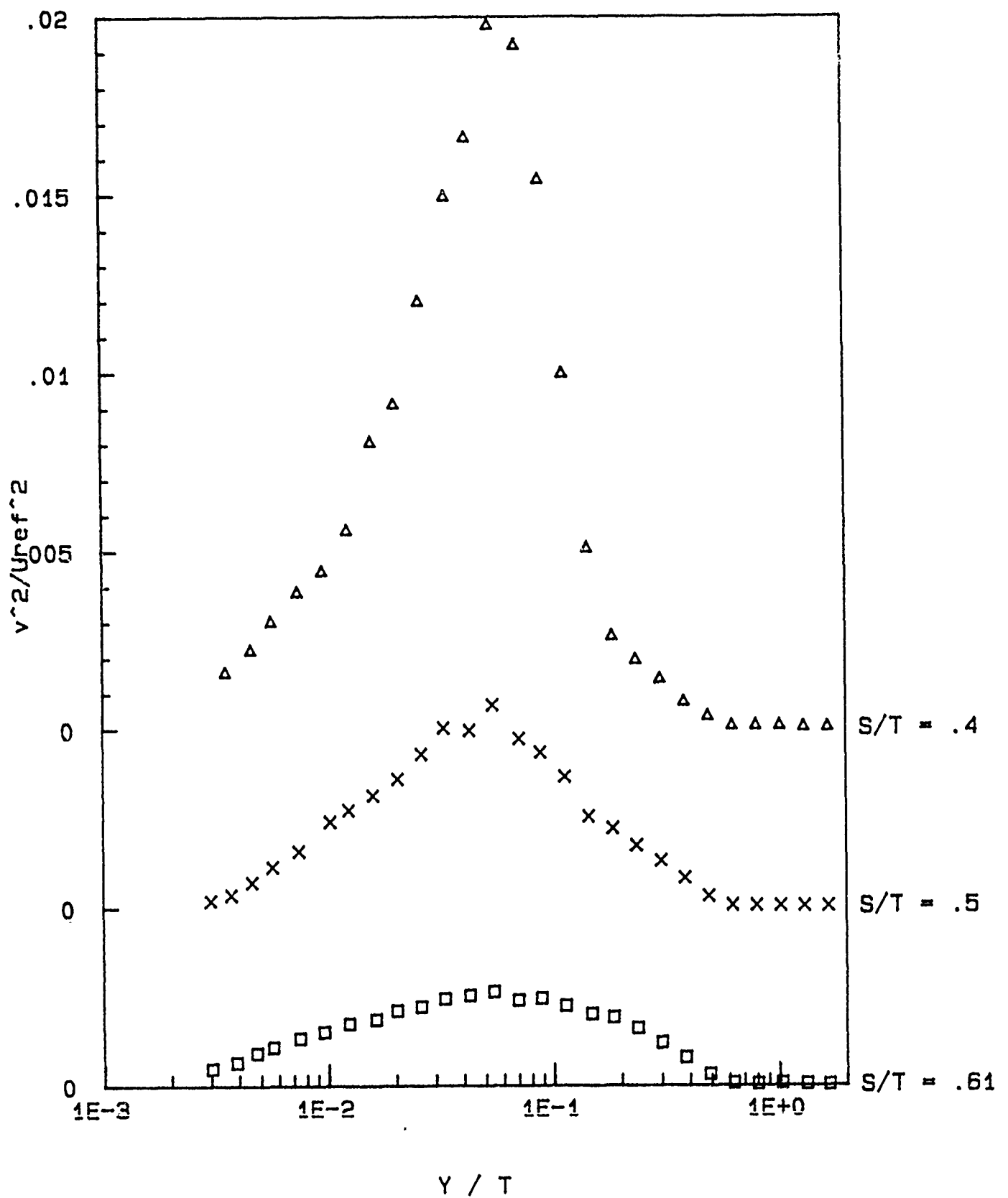


Figure F.3-5(a) Profiles of V-component of turbulence normal stress, plane 4.

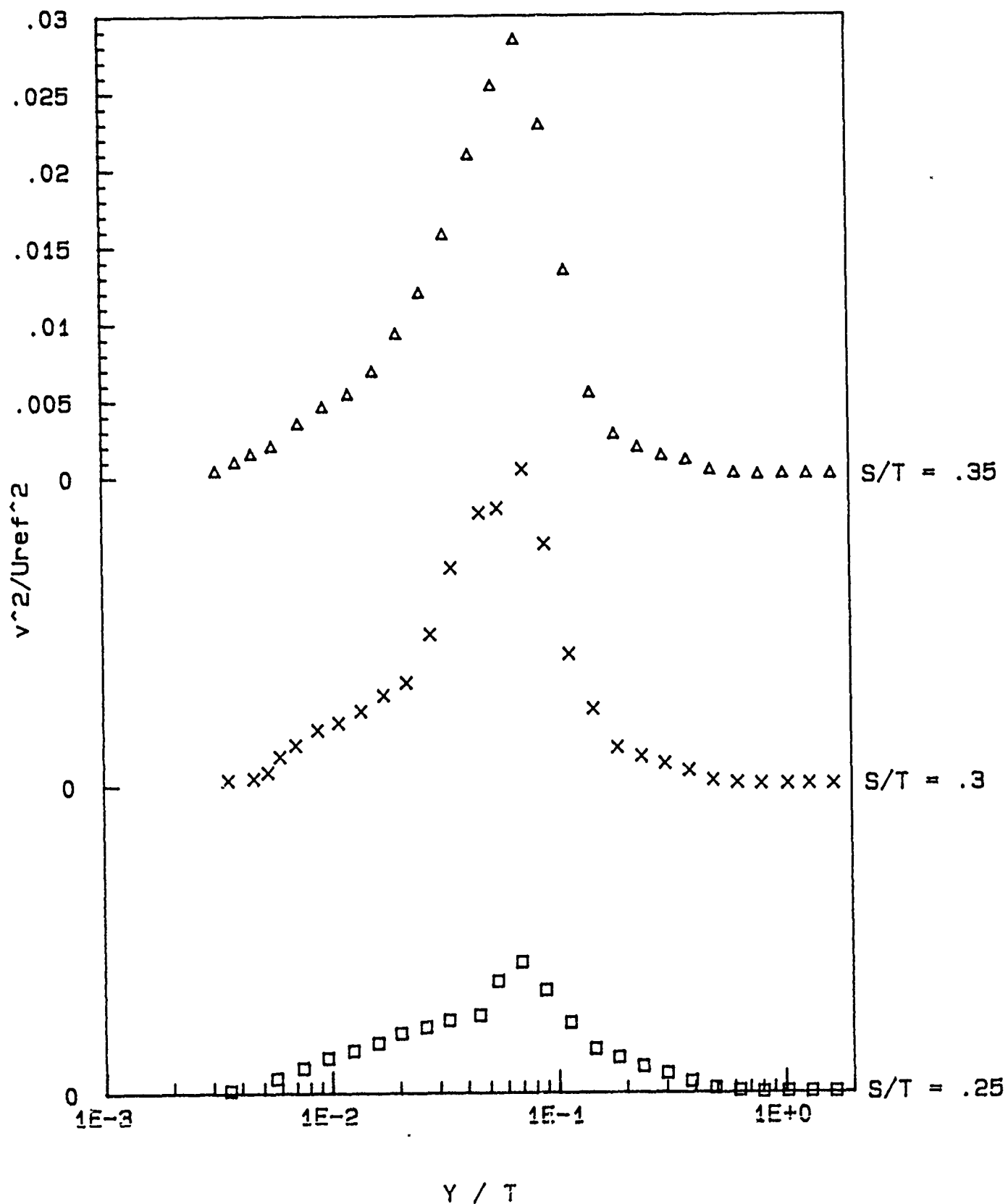


Figure F.3-5(b) Profiles of V-component of turbulence normal stress, plane 4.

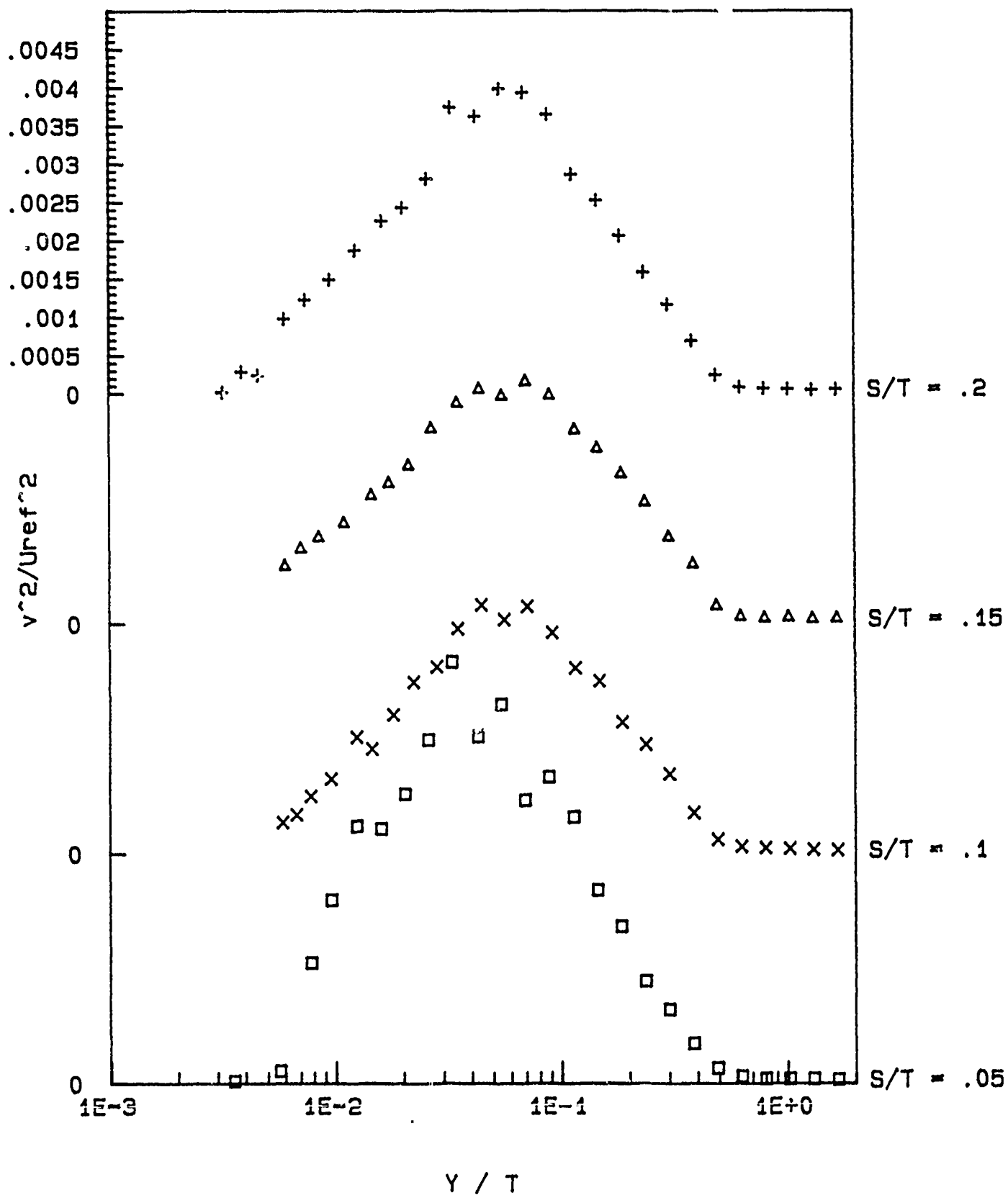


Figure F.3-5(c) Profiles of V-component of turbulence normal stress, plane 4.

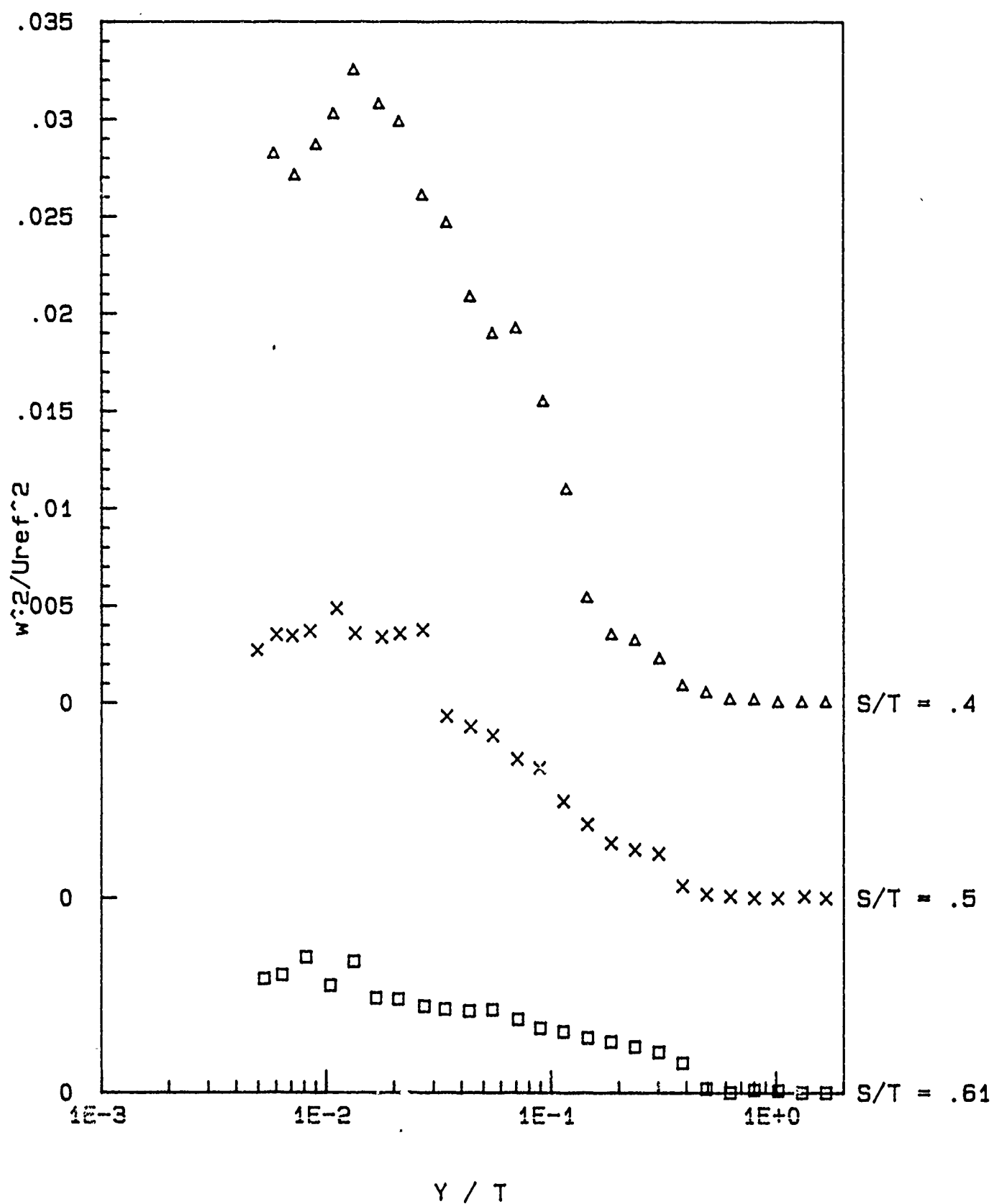


Figure F.3-6(a) Profiles of W-component of turbulence normal stress, plane 4.

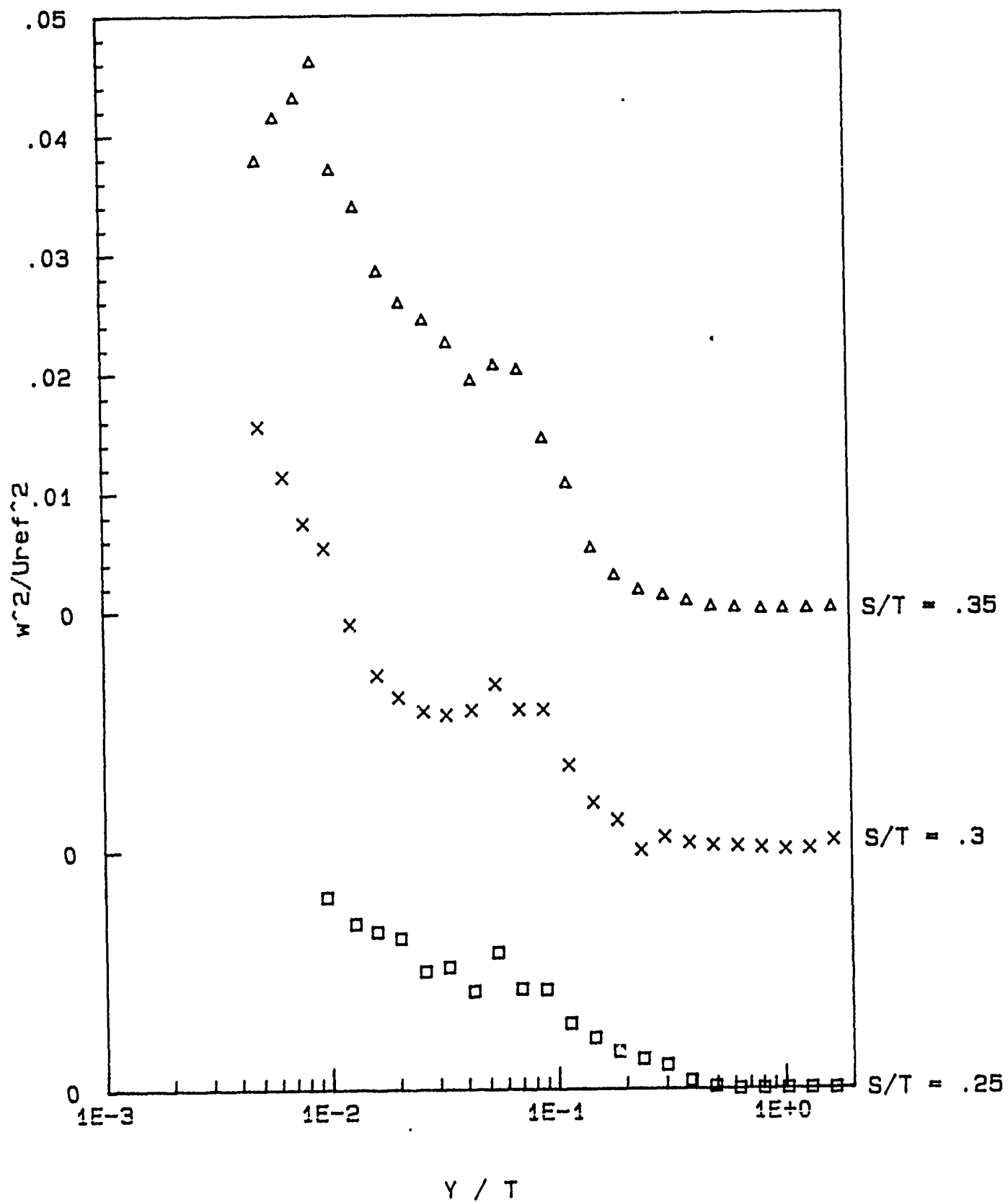


Figure F.3-6(b) Profiles of W-component of turbulence normal stress, plane 4.

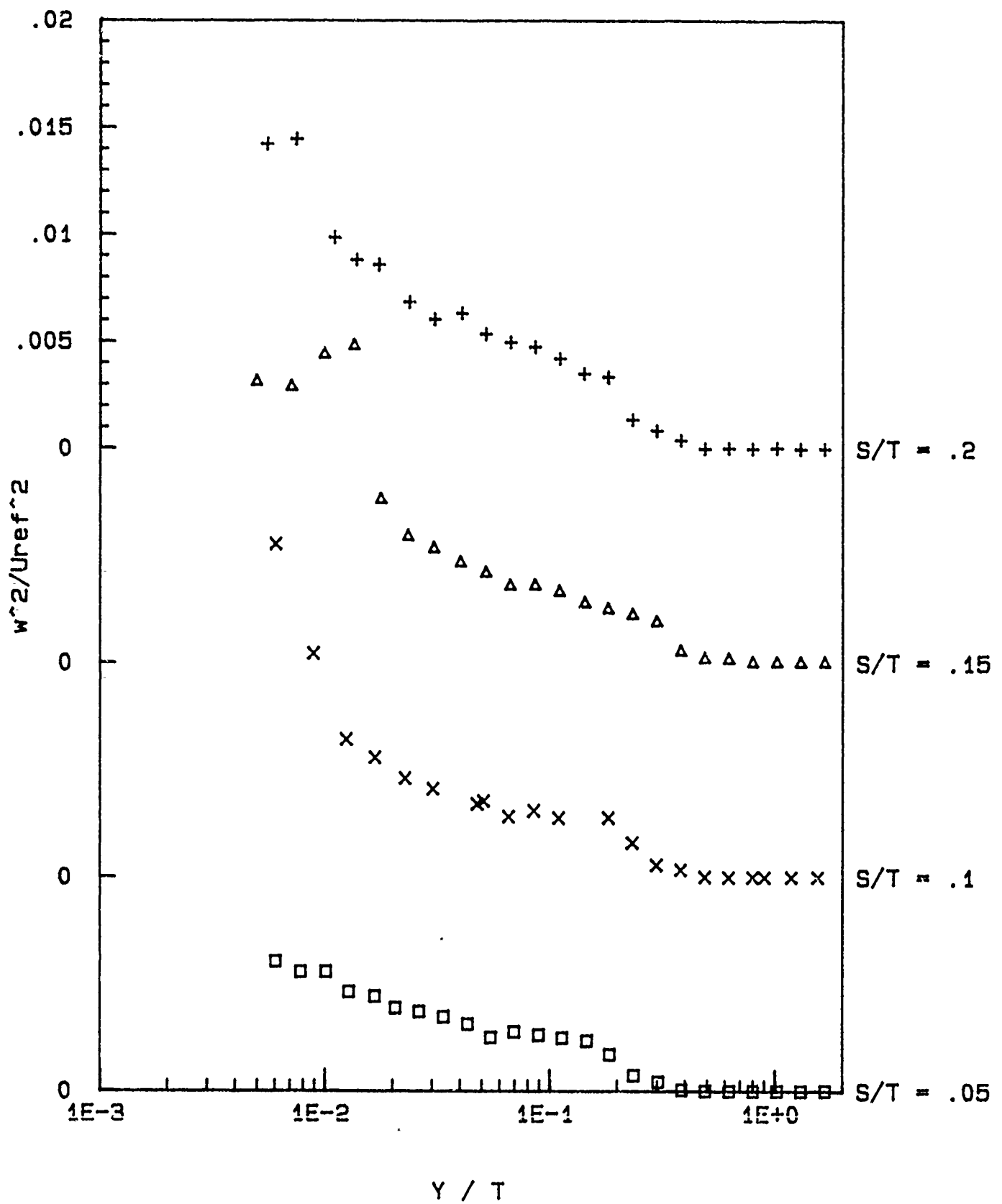


Figure F.3-6(c) Profiles of W-component of turbulence normal stress, plane 4.

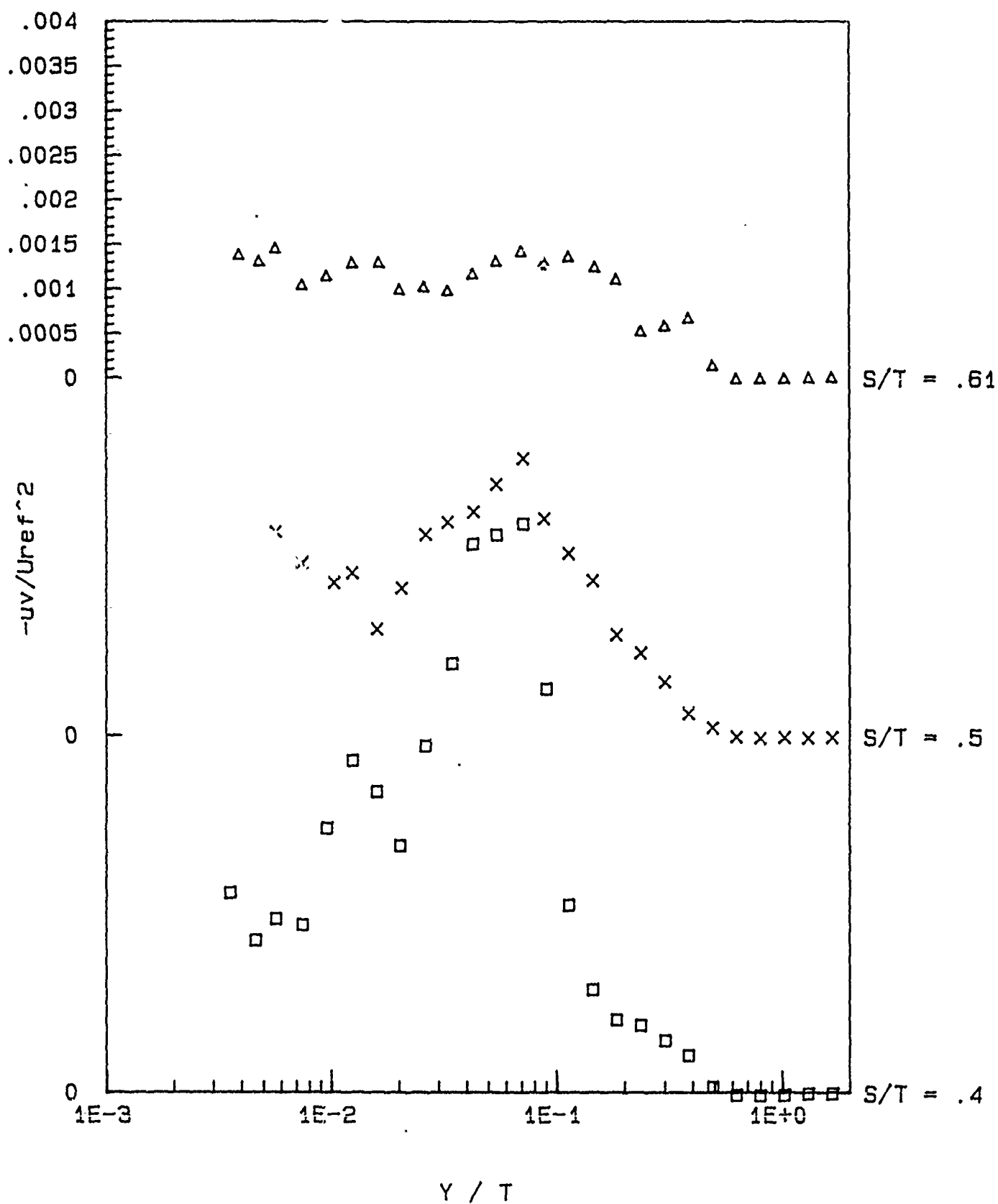


Figure F.3-7(a) Profiles of UV Reynolds shear stress, plane 4.

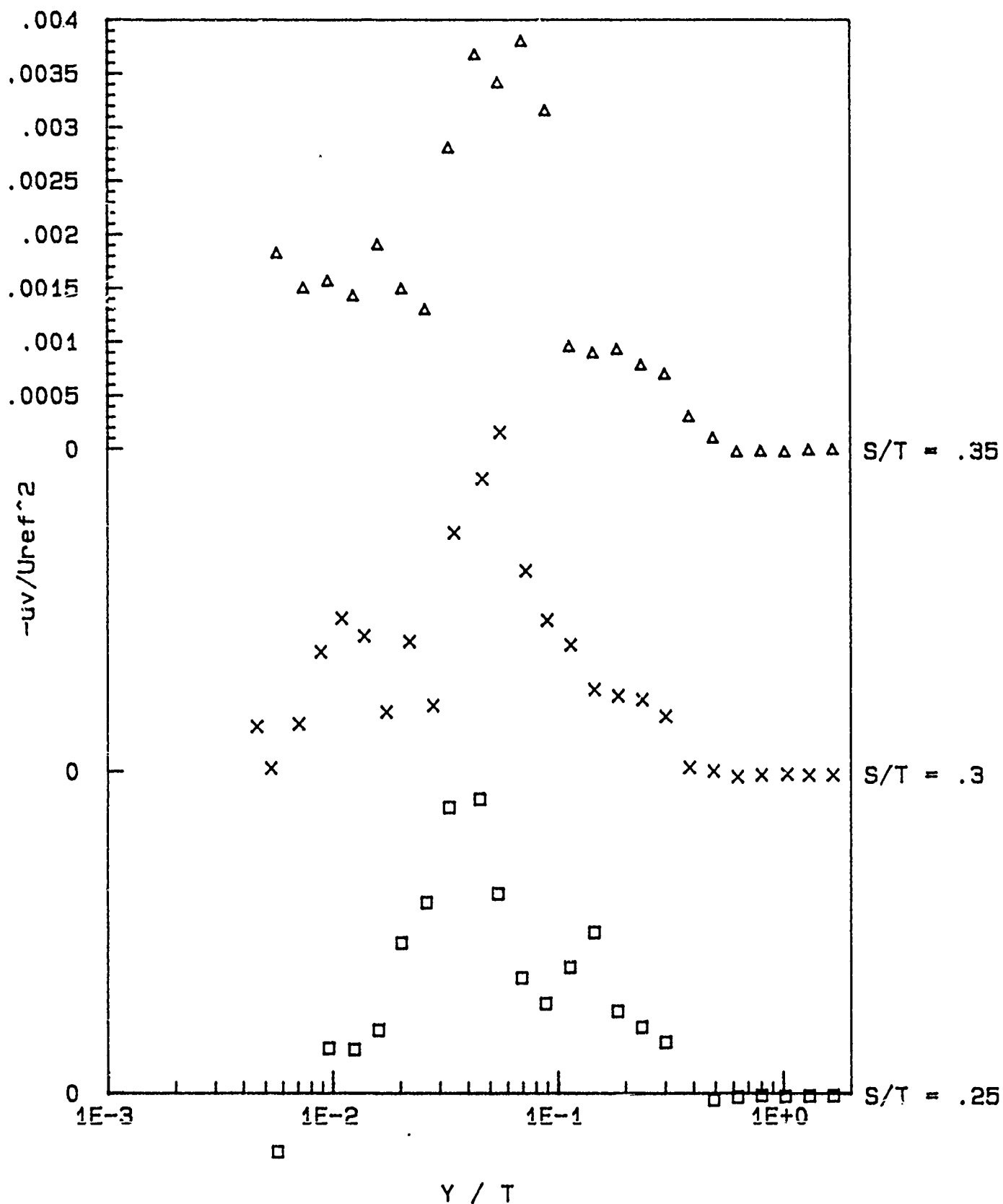


Figure F.3-7(b) Profiles of UV Reynolds shear stress, plane 4.

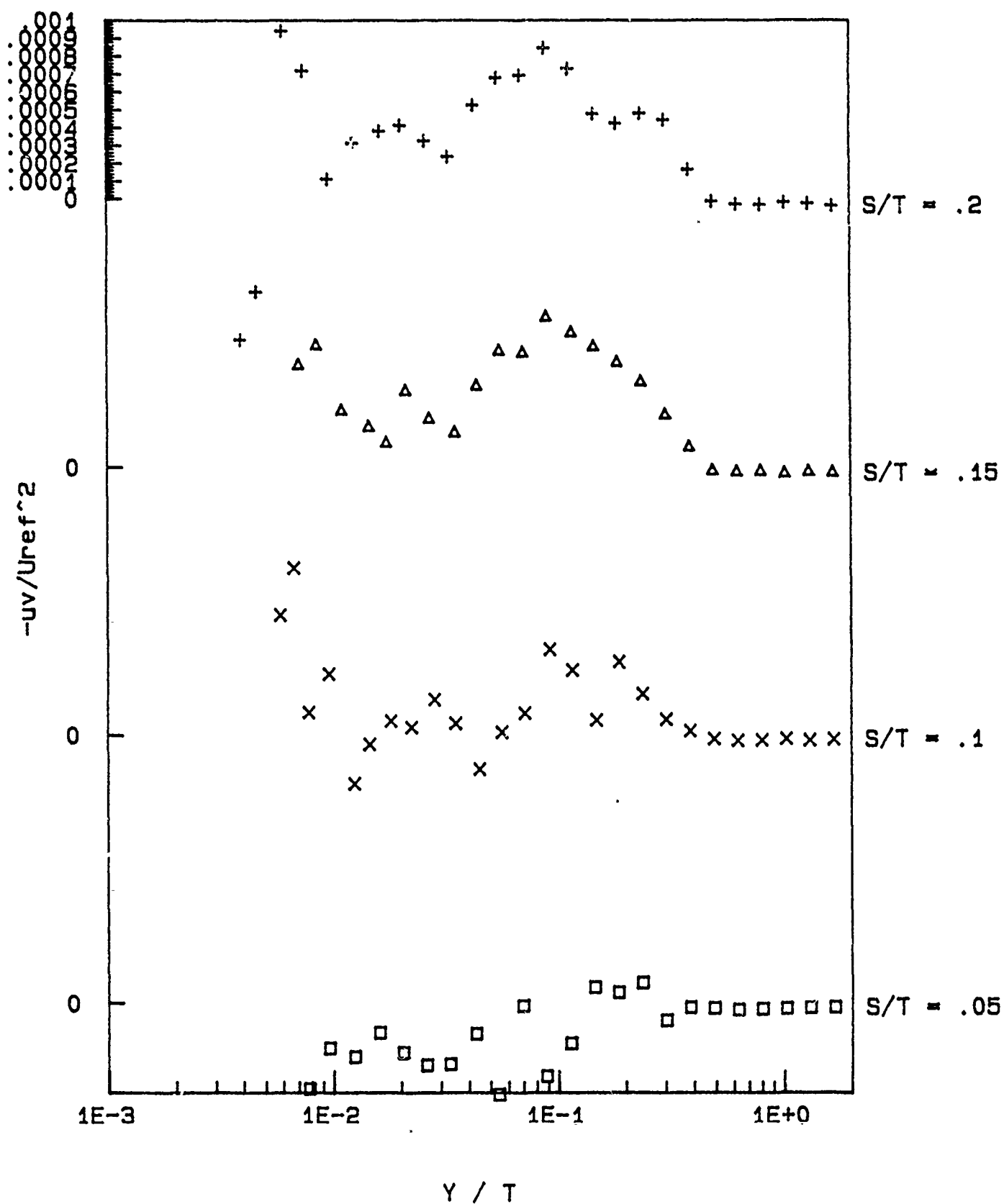


Figure F.3-7(c) Profiles of UV Reynolds shear stress, plane 4.

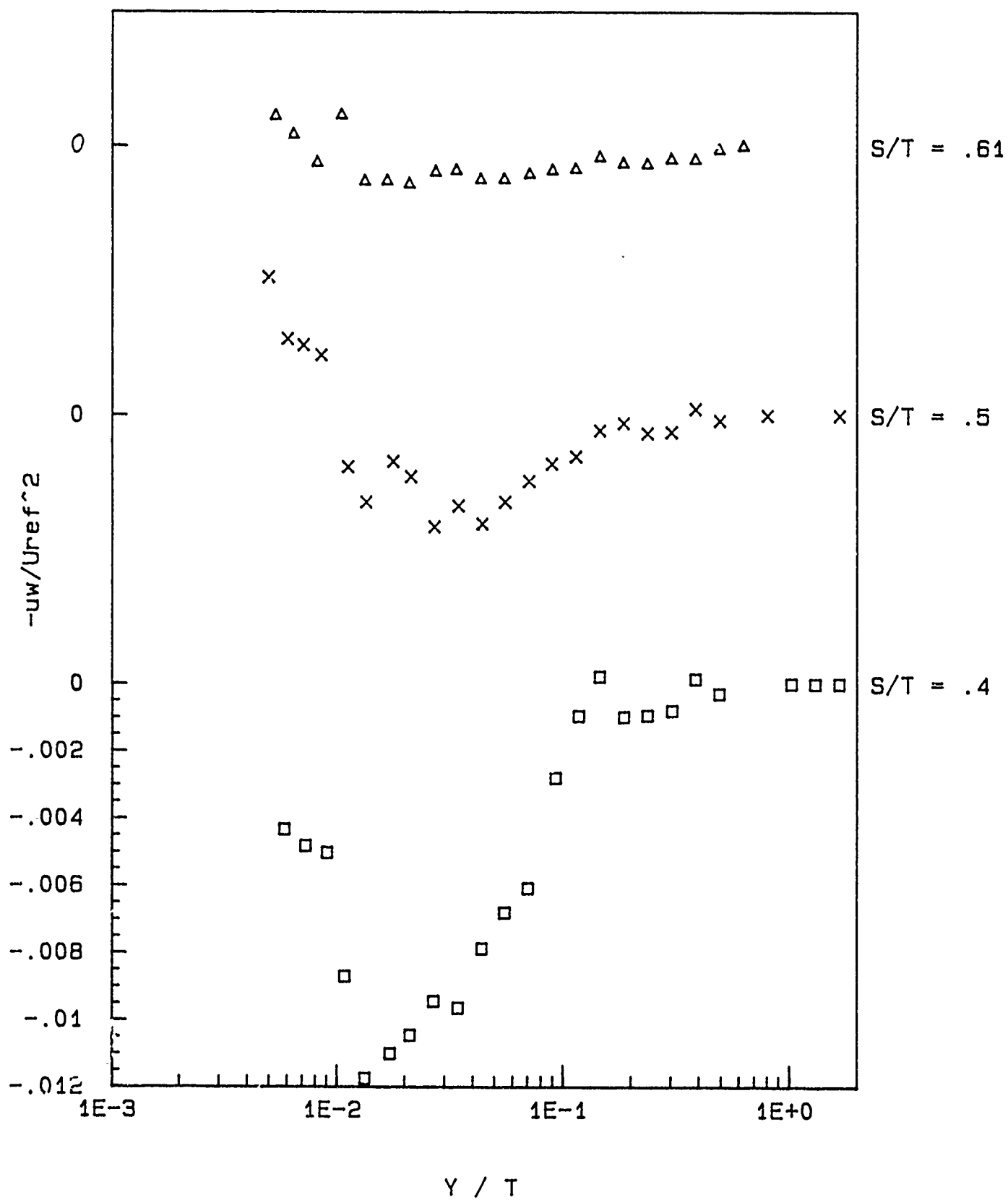


Figure F.3-8(a) Profiles of UW Reynolds shear stress, plane 4.

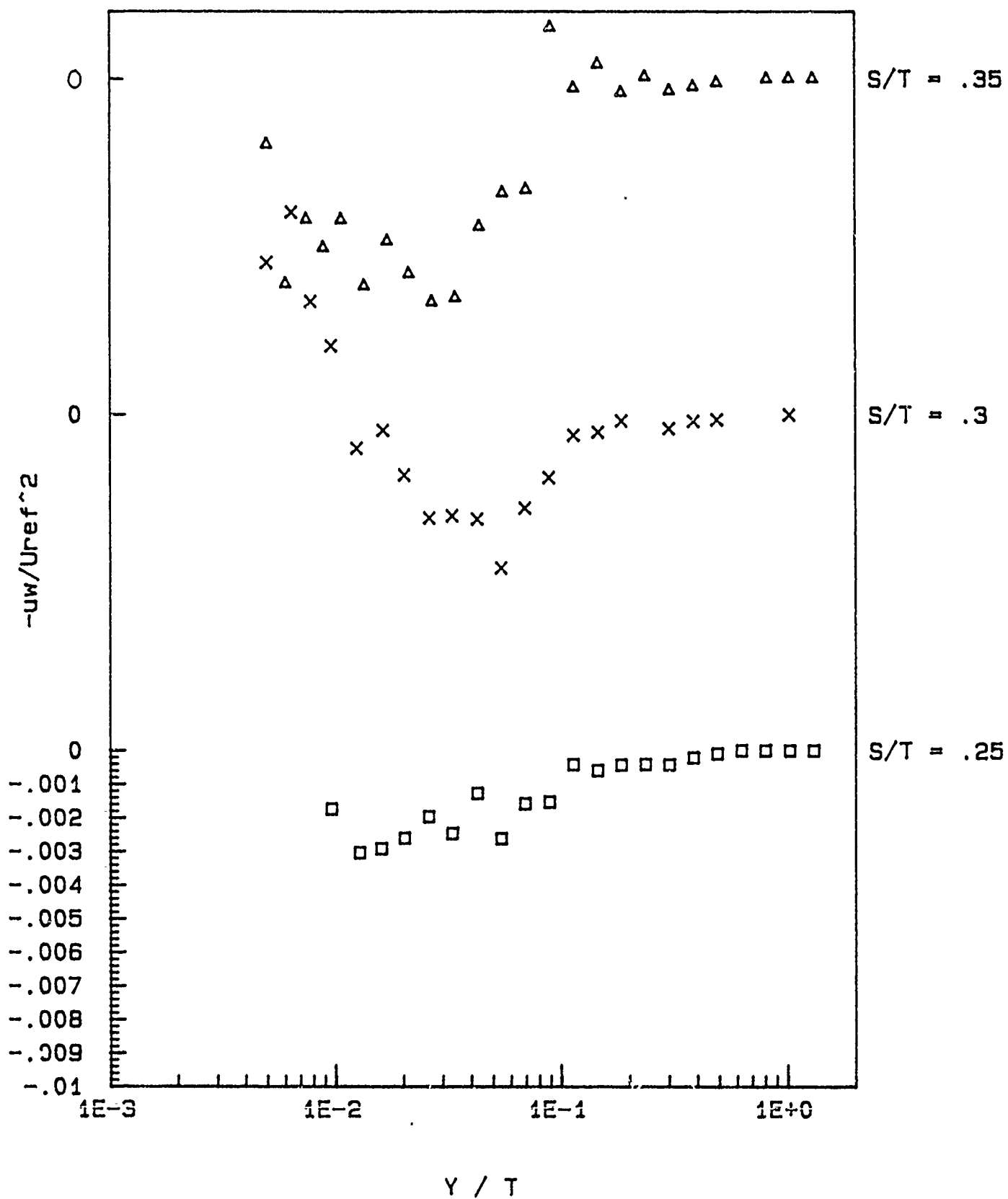


Figure F.3-8(b) Profiles of UW Reynolds shear stress, plane 4.

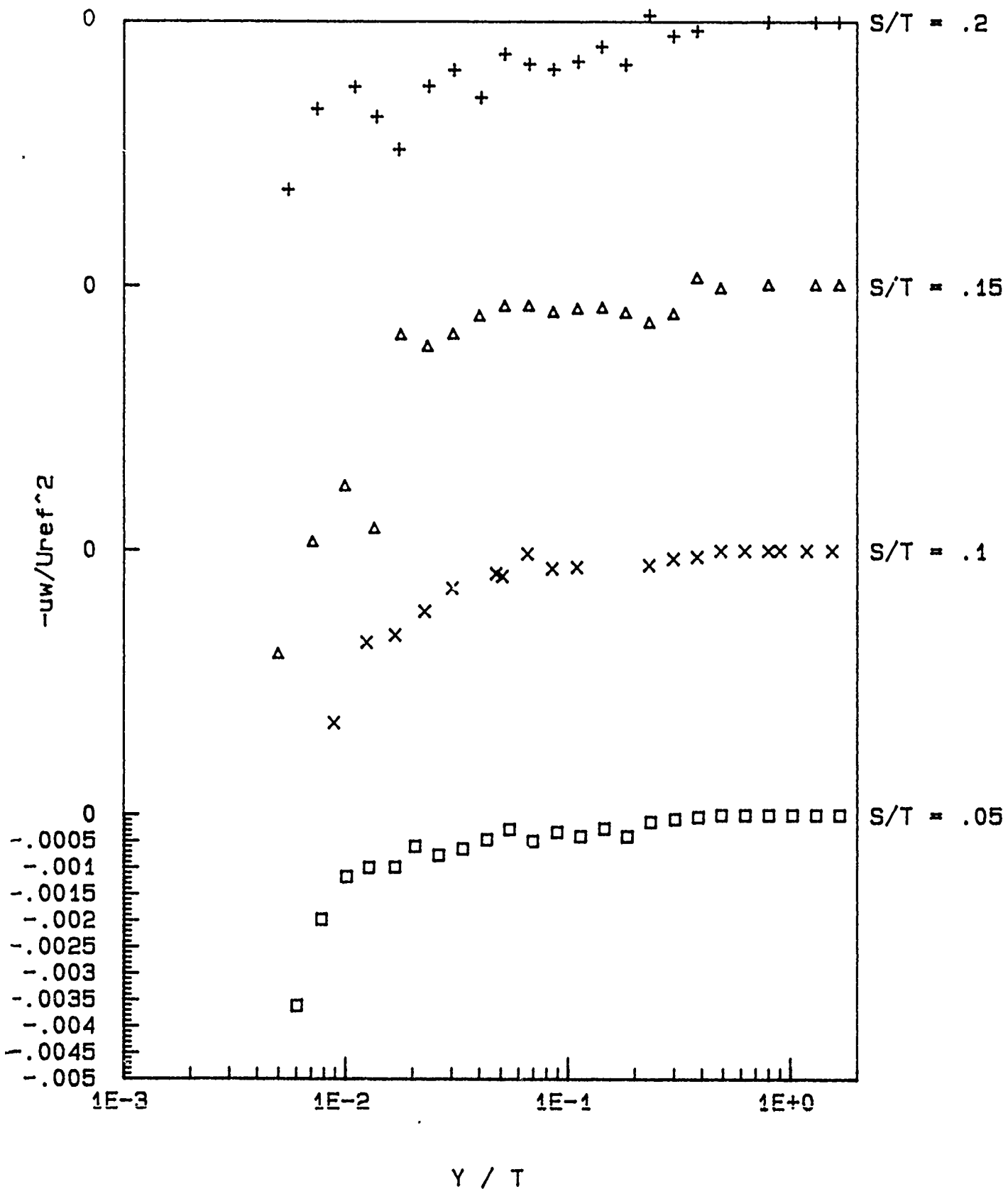


Figure F.3-8(c) Profiles of UW Reynolds shear stress, plane 4.

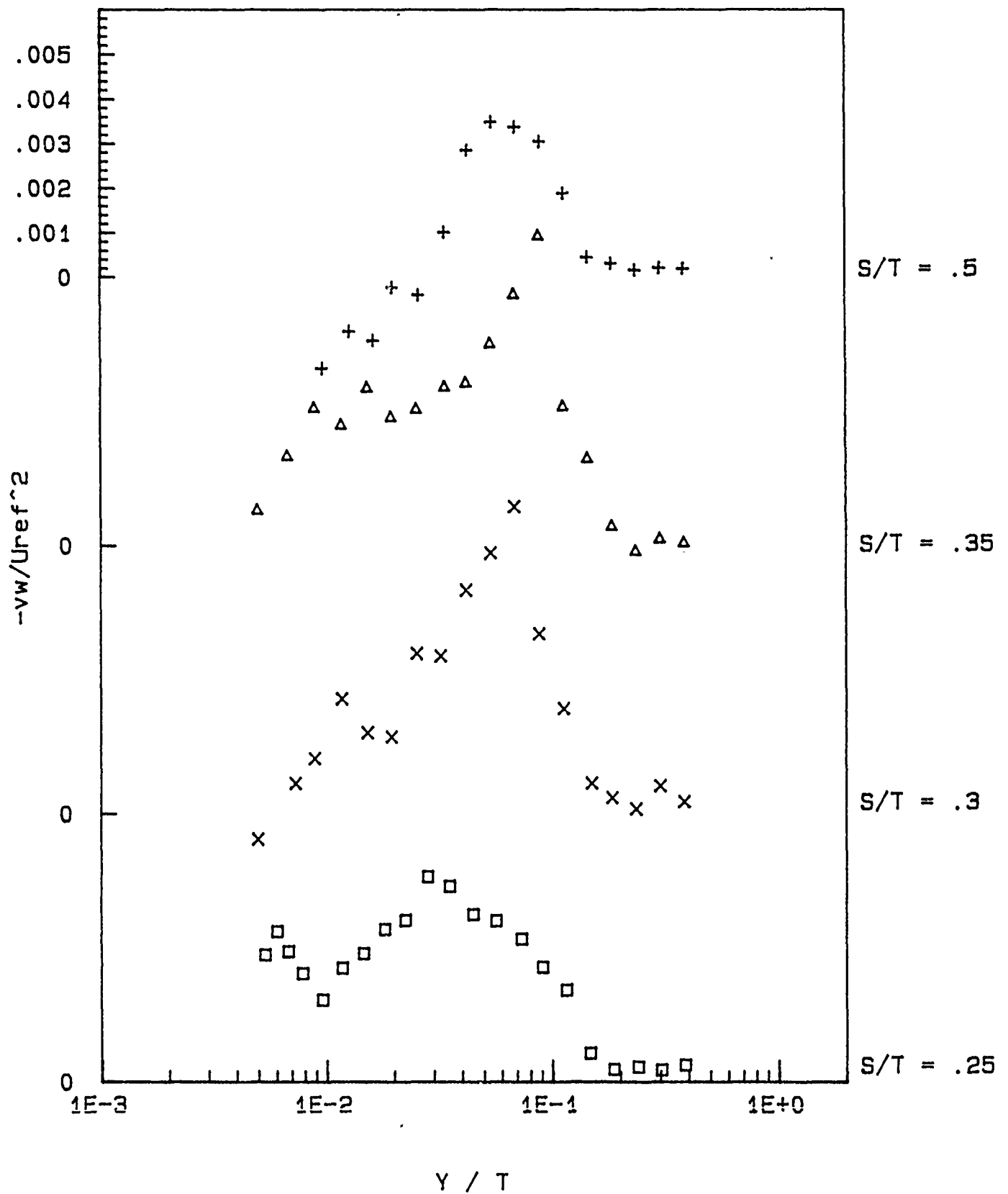


Figure F.3-9(a) Profiles of VW Reynolds shear stress, plane 4.

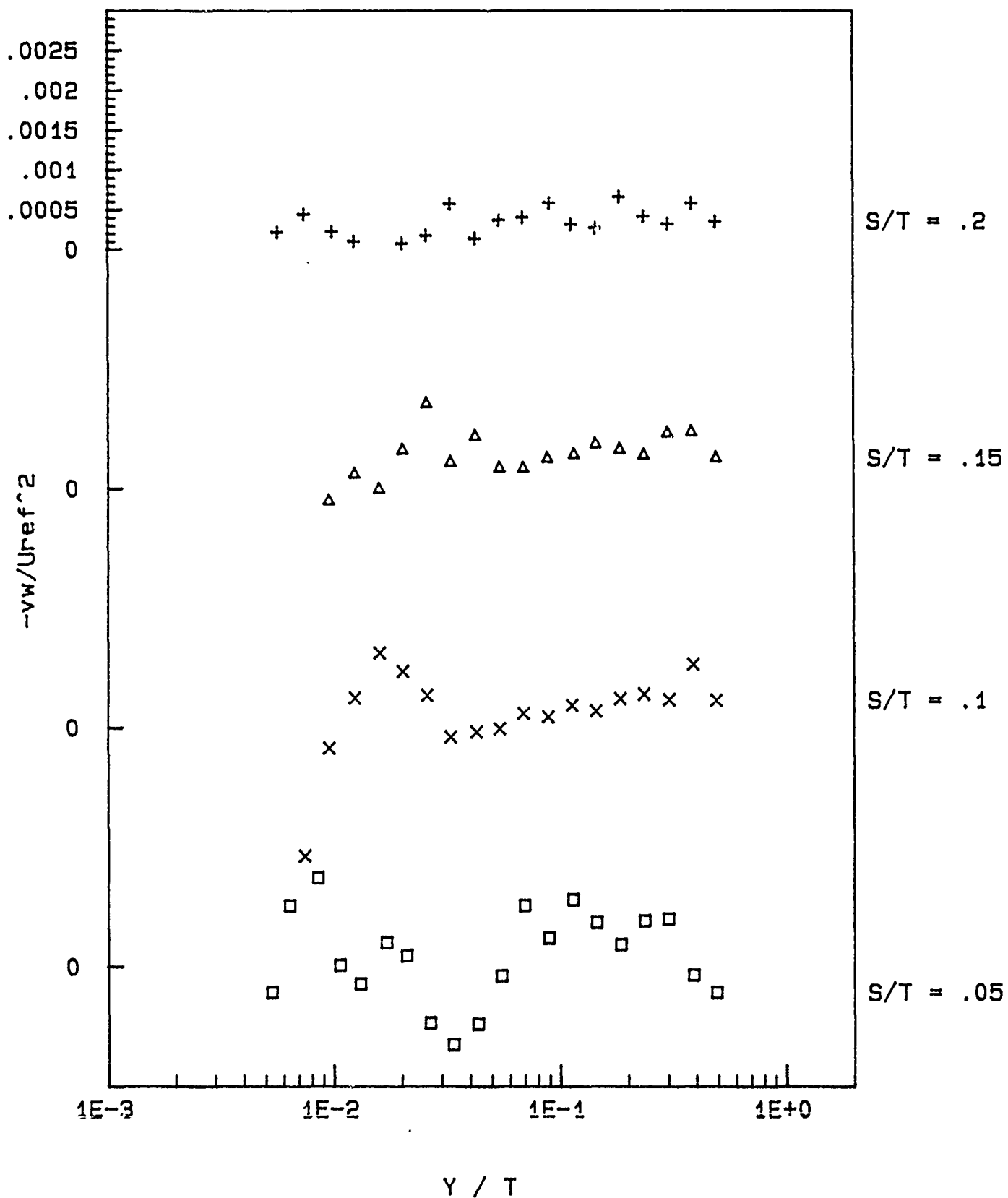


Figure F.3-9(b) Profiles of VW Reynolds shear stress, plane 4.

File E304770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.9

density (kilograms per meter cubed) = 1.091328

viscosity (meters squared per second) = 1.677894E-05

Atmospheric pressure (Pascals) = 93035

Velocity of undisturbed free stream (Uref, in m/s) = 27.61344

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092056E-03

Estimated momentum thickness Reynolds number = 6734.379

Location of traverse; X/T = .361 Z/T = -1.0689 (Plane 4, S/T = 0.61)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	3.1746E-01				-9.6966E-03				
2.1246E-03	4.6189E-01				-1.4944E-02				
3.0099E-03	5.4075E-01				-1.7206E-02	4.8806E-04	-1.9920E-01	1.2800E+00	
3.8952E-03	5.8690E-01	7.8176E-03			-1.8960E-02	6.5925E-04	-4.1614E-02	1.2963E+00	-1.3644E-03
4.7805E-03	6.2378E-01	7.5280E-03			-2.3095E-02	9.2476E-04	-1.8121E-01	9.9459E-01	-1.2929E-03
5.6657E-03	6.4889E-01	7.2237E-03	-5.7486E-01	1.0566E+00	-2.4734E-02	1.0878E-03	-6.5969E-02	6.6109E-01	-1.4372E-03
7.4363E-03	6.7358E-01	6.4789E-03	-4.0405E-01	4.3576E-01	-2.6334E-02	1.3414E-03	3.4503E-02	5.1548E-01	-1.0265E-03
9.5609E-03	6.9267E-01	5.5548E-03	-2.3902E-01	1.6368E-01	-2.7593E-02	1.5160E-03	5.0896E-02	3.6281E-01	-1.1271E-03
1.2394E-02	7.0327E-01	5.1102E-03	-1.5369E-01	1.9555E-01	-2.7655E-02	1.7449E-03	3.0379E-02	3.4420E-01	-1.2726E-03
1.6289E-02	7.2192E-01	4.5182E-03	-7.9571E-02	3.5544E-02	-2.9121E-02	1.8620E-03	1.0864E-01	2.3099E-01	-1.2806E-03
2.0184E-02	7.2923E-01	4.3276E-03	-1.1086E-01	-2.0256E-02	-2.9664E-02	2.1100E-03	9.4834E-02	2.4004E-01	-9.7371E-04
2.5850E-02	7.5408E-01	4.5078E-03	-9.3453E-02	-1.4606E-02	-2.7812E-02	2.2208E-03	1.1989E-01	2.2448E-01	-1.0049E-03
3.2932E-02	7.5967E-01	4.5844E-03	-6.7087E-02	-5.4679E-02	-2.4931E-02	2.4414E-03	1.1584E-01	2.4809E-01	-9.6327E-04
4.2493E-02	7.8227E-01	4.5697E-03	-4.7771E-02	-1.7539E-01	-2.1077E-02	2.5355E-03	1.3997E-01	1.3949E-01	-1.1518E-03
5.4178E-02	7.9018E-01	4.6535E-03	-9.4999E-02	-1.7041E-01	-1.8311E-02	2.6401E-03	1.6194E-01	1.9722E-01	-1.2951E-03
6.9759E-02	8.1758E-01	4.8267E-03	-8.6968E-02	-1.9578E-01	-1.1693E-02	2.3969E-03	1.5055E-01	4.8495E-02	-1.4052E-03
8.8173E-02	8.3235E-01	4.6901E-03	-8.8867E-02	-2.2426E-01	-8.4210E-03	2.4511E-03	1.5206E-01	4.3664E-02	-1.2662E-03
1.1296E-01	8.6789E-01	4.4978E-03	-1.6406E-01	-2.5593E-01	-5.1615E-03	2.2412E-03	2.2948E-01	5.9341E-02	-1.3445E-03
1.4766E-01	9.0065E-01	4.0329E-03	-2.2179E-01	-2.6456E-01	-1.7255E-03	2.0161E-03	2.0224E-01	3.2972E-02	-1.2311E-03
1.8414E-01	9.3470E-01	3.5867E-03	-2.8539E-01	-2.1107E-01	-4.0589E-03	1.9145E-03	2.5089E-01	1.0233E-01	-1.0905E-03
2.3619E-01	9.7136E-01	2.8701E-03	-3.5198E-01	-7.4103E-02	-1.0338E-02	1.6145E-03	2.6737E-01	9.7740E-02	-5.1019E-04
3.0028E-01	1.0122E+00	2.0962E-03	-5.0147E-01	1.8726E-01	-1.5326E-02	1.2048E-03	3.1904E-01	3.1909E-01	-5.6989E-04
3.8350E-01	1.0543E+00	1.2381E-03	-6.6628E-01	4.1922E-01	-1.3565E-02	7.8606E-04	2.8508E-01	3.8976E-01	-6.5599E-04
4.8973E-01	1.0969E+00	4.1541E-04	-1.1199E+00	1.7145E+00	-1.3222E-02	3.1948E-04	5.0287E-01	8.6744E-01	-1.2375E-04
6.2571E-01	1.1058E+00	6.5787E-05	-1.0336E-01	-1.8410E-01	-1.1079E-02	7.0752E-05	1.3083E-01	-8.9203E-02	2.3498E-05
7.9993E-01	1.1105E+00	4.3031E-05	-1.7891E-01	-3.0211E-01	-1.4641E-02	4.8734E-05	1.0417E-01	-3.2388E-01	2.2523E-05
1.0223E+00	1.1088E+00	3.5265E-05	-2.1586E-01	-3.5980E-01	2.1001E-03	6.3314E-05	-7.6849E-01	4.5078E-01	1.9979E-05
1.3205E+00	1.1104E+00	2.7151E-05	-1.5527E-01	-3.7621E-01	-2.3007E-03	4.3062E-05	2.1038E-01	-1.5887E-01	1.3406E-05
1.6636E+00	1.1141E+00	2.8606E-05	-2.0541E-01	-3.4793E-01	1.7034E-02	3.1573E-05	1.2135E-01	-3.1696E-01	9.8313E-06

Table F.3-1 Velocity measurements made at S/T = 0.61 with the UV system of the laser anemometer, plane 4

File E303770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.8

density (kilograms per meter cubed) = 1.095275

viscosity (meters squared per second) = 1.671414E-05

Atmospheric pressure (Pascals) = 93340

Velocity of undisturbed free stream (Uref, in m/s) = 27.61273

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092077E-03

Estimated momentum thickness Reynolds number = 6760.347

Location of traverse; X/T = .382 Z/T = -.9562 (Plane 4, S/T = 0.50)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.5635E-01				-7.2038E-03				
2.1246E-03	2.6817E-01				-8.5014E-03				
3.0099E-03	4.2385E-01				-1.1487E-02	2.0651E-04	-2.4735E-01	2.1486E+00	
3.7181E-03	5.1197E-01				-1.3790E-02	3.6866E-04	-5.6942E-02	2.0576E+00	
4.6034E-03	5.9636E-01				-1.8514E-02	7.1673E-04	-5.6004E-02	1.4078E+00	
5.6657E-03	6.3832E-01	1.0714E-02	-5.2560E-01	1.1310E+00	-2.4633E-02	1.1489E-03	-2.2207E-01	1.1949E+00	-2.2754E-03
7.4363E-03	6.8448E-01	9.0836E-03	-4.9330E-01	8.0006E-01	-3.0698E-02	1.5948E-03	-8.3573E-02	8.4609E-01	-1.9358E-03
1.0269E-02	7.1898E-01	7.1234E-03	-3.6577E-01	3.4550E-01	-3.3546E-02	2.4196E-03	1.9316E-02	4.2781E-01	-1.7099E-03
1.2394E-02	7.2778E-01	6.4563E-03	-3.1995E-01	3.9004E-01	-3.5387E-02	2.7446E-03	4.9905E-02	4.1784E-01	-1.8179E-03
1.5935E-02	7.3506E-01	6.3096E-03	-2.3346E-01	2.8075E-01	-3.6925E-02	3.1552E-03	1.0592E-01	4.2652E-01	-1.1892E-03
2.0538E-02	7.4253E-01	6.1331E-03	-2.5032E-01	2.0458E-01	-3.9357E-02	3.6213E-03	1.0066E-01	3.0644E-01	-1.6527E-03
2.6204E-02	7.5785E-01	6.3544E-03	-2.7509E-01	2.2346E-01	-3.9612E-02	4.3197E-03	1.4782E-01	4.2517E-01	-2.2501E-03
3.2932E-02	7.6710E-01	6.9949E-03	-3.9012E-01	4.0986E-01	-4.6132E-02	5.0439E-03	2.8047E-01	3.6894E-01	-2.3894E-03
4.2847E-02	7.7887E-01	6.8213E-03	-3.8262E-01	3.7136E-01	-3.5707E-02	4.9746E-03	3.0710E-01	3.5047E-01	-2.5047E-03
5.4178E-02	7.9152E-01	7.4166E-03	-4.9441E-01	4.2236E-01	-3.0037E-02	5.6882E-03	6.4139E-01	9.4213E-01	-2.8151E-03
7.1176E-02	8.1358E-01	6.5391E-03	-3.9981E-01	3.2579E-01	-1.9060E-02	4.7419E-03	8.4542E-01	1.5558E+00	-3.1038E-03
8.8173E-02	8.3695E-01	6.3724E-03	-3.6950E-01	2.7477E-01	-1.1060E-02	4.3533E-03	7.8328E-01	1.4041E+00	-2.4275E-03
1.1296E-01	8.7045E-01	5.6371E-03	-3.0645E-01	1.6362E-01	-1.1173E-03	3.6730E-03	8.5915E-01	1.7706E+00	-2.0384E-03
1.4412E-01	8.9995E-01	4.2221E-03	-2.1999E-01	-1.6871E-01	1.3065E-04	2.5608E-03	2.7388E-01	1.2122E-01	-1.7334E-03
1.8414E-01	9.4919E-01	3.5657E-03	-2.7362E-01	-1.7136E-01	-1.1240E-03	2.2225E-03	2.8819E-01	2.2164E-02	-1.1279E-03
2.3513E-01	9.8875E-01	2.9441E-03	-3.5153E-01	-1.0916E-01	-8.0072E-03	1.7426E-03	2.5058E-01	5.4446E-02	-9.2424E-04
3.0028E-01	1.0351E+00	2.2322E-03	-4.8433E-01	3.3817E-03	-1.6071E-02	1.3136E-03	3.3754E-01	2.3469E-01	-5.9679E-04
3.8350E-01	1.0767E+00	1.3016E-03	-7.0204E-01	5.2717E-01	-1.4313E-02	8.2829E-04	3.8711E-01	4.3816E-01	-2.4302E-04
4.8973E-01	1.1166E+00	4.0733E-04	-1.1980E+00	1.8465E+00	-1.8438E-02	3.2779E-04	4.7599E-01	8.5997E-01	-8.5106E-05
6.2571E-01	1.1248E+00	5.7827E-05	-6.8693E-02	-1.5723E-01	-1.2655E-02	6.5186E-05	3.2556E-02	-7.4472E-03	1.6851E-05
7.9887E-01	1.1217E+00	5.4913E-05	-7.4476E-02	-3.7312E-01	-1.8337E-02	6.2347E-05	-1.0610E-01	-2.3653E-01	3.0967E-05
1.0212E+00	1.1190E+00	5.3870E-05	-1.1844E-01	-3.5501E-01	-7.1904E-03	4.8453E-05	1.2846E-01	-3.5170E-01	2.3274E-05
1.3028E+00	1.1237E+00	6.0162E-05	-3.0621E-01	-2.6062E-01	-1.2170E-03	4.7373E-05	1.3780E-01	-2.3251E-01	2.9324E-05
1.6636E+00	1.1246E+00	4.7041E-05	-2.9084E-01	-2.6787E-01	9.4539E-03	4.4147E-05	2.1400E-01	-2.3688E-01	2.5153E-05

Table F.3-2 Velocity measurements made at S/T = 0.50 with the UV system of the laser anemometer, plane 4

File E302770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.098402

viscosity (meters squared per second) = 1.671846E-05

Atmospheric pressure (Pascals) = 93985

Velocity of undisturbed free stream (Uref, in m/s) = 27.50258

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09535E-03

Estimated momentum thickness Reynolds number = 6737.024

Location of traverse; X/T = .4004 Z/T = -.8579 (Plane 4, S/T = 0.40)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
2.1246E-03	5.5344E-01				-1.7838E-02				
2.8329E-03	6.1028E-01				-2.6659E-02				
3.5411E-03	6.4313E-01	1.7742E-02	-3.3765E-01	5.7045E-01	-2.8506E-02	1.5867E-03	-1.5730E-01	1.2580E+00	-2.2323E-03
4.6034E-03	6.8279E-01	1.6969E-02	-3.5377E-01	3.2568E-01	-3.1567E-02	2.2112E-03	-6.3886E-02	8.3789E-01	-1.7004E-03
5.6657E-03	7.1647E-01	1.5579E-02	-3.9105E-01	3.0376E-01	-3.4362E-02	3.0054E-03	1.3044E-01	6.8406E-01	-1.9413E-03
7.4363E-03	7.3136E-01	1.4342E-02	-4.5055E-01	5.4116E-02	-3.5605E-02	3.8314E-03	4.0922E-02	4.1003E-01	-1.8766E-03
9.5609E-03	7.3910E-01	1.2896E-02	-3.8875E-01	-6.9934E-02	-3.6802E-02	4.4165E-03	1.2441E-01	3.1673E-01	-2.9579E-03
1.2394E-02	7.6736E-01	1.2924E-02	-4.3261E-01	5.6341E-02	-3.1579E-02	5.5642E-03	1.3381E-01	1.7900E-01	-3.7160E-03
1.5935E-02	7.4717E-01	1.1985E-02	-3.1555E-01	-1.4349E-01	-2.8134E-02	8.0434E-03	1.4610E-01	1.3356E-01	-3.3657E-03
2.0184E-02	7.4838E-01	1.2599E-02	-2.9783E-01	-1.7793E-02	-2.5224E-02	9.1124E-03	1.9120E-01	-5.6211E-02	-2.7611E-03
2.6204E-02	7.4357E-01	1.2144E-02	-2.7305E-01	-1.4240E-01	-1.9405E-02	1.1985E-02	2.4543E-01	-1.2393E-01	-3.8796E-03
3.4348E-02	7.4879E-01	1.2182E-02	-2.4903E-01	-2.6950E-01	-1.0619E-02	1.4939E-02	3.0979E-01	-2.4224E-01	-4.8008E-03
4.2493E-02	7.5614E-01	1.3485E-02	-2.4007E-01	-2.1703E-01	-6.0266E-03	1.6592E-02	3.6802E-01	-3.1847E-01	-4.1394E-03
5.4178E-02	7.6977E-01	1.2901E-02	-2.5904E-01	-1.4058E-01	7.9432E-03	1.9740E-02	3.1678E-01	-3.4646E-01	-6.2452E-03
7.1176E-02	8.1253E-01	1.1836E-02	-3.6250E-01	-2.2505E-02	1.6222E-02	1.9175E-02	4.5277E-01	-1.4480E-01	-6.3681E-03
8.9943E-02	8.5631E-01	9.9822E-03	-3.8681E-01	2.7435E-01	2.1680E-02	1.5406E-02	6.9271E-01	3.9451E-01	-4.5170E-03
1.1296E-01	9.0188E-01	7.1495E-03	-3.5208E-01	3.8900E-01	7.6392E-03	9.9595E-03	7.7724E-01	1.1609E+00	-2.0969E-03
1.4412E-01	9.3811E-01	4.8313E-03	-2.5104E-01	1.2778E-01	-5.6276E-03	5.0586E-03	5.6333E-01	1.1318E+00	-1.1509E-03
1.8414E-01	9.8446E-01	3.1652E-03	-2.8213E-01	-8.6088E-02	-2.4639E-02	2.5888E-03	2.2489E-01	1.9373E-01	-8.1123E-04
2.3513E-01	1.0221E+00	2.6510E-03	-3.5908E-01	-5.8397E-02	-3.4222E-02	1.9240E-03	1.9152E-01	1.9765E-01	-7.5052E-04
3.0064E-01	1.0620E+00	1.9755E-03	-5.0190E-01	7.6923E-02	-3.9800E-02	1.3912E-03	1.8385E-01	4.0817E-01	-5.7922E-04
3.8350E-01	1.1033E+00	1.0859E-03	-8.0400E-01	7.4829E-01	-4.2291E-02	7.5159E-04	2.2691E-01	5.5734E-01	-4.1417E-04
4.9009E-01	1.1341E+00	3.1042E-04	-1.1927E+00	2.3351E+00	-3.7733E-02	3.4507E-04	5.0660E-01	9.0692E-01	-5.6781E-05
6.2571E-01	1.1454E+00	6.4998E-05	-1.0176E-01	-2.2705E-01	-3.8125E-02	7.8976E-05	1.4534E-01	-1.2965E-01	3.1470E-05
7.9887E-01	1.1531E+00	5.1456E-05	-1.7505E-01	-3.5841E-01	-2.6272E-02	8.0181E-05	-8.5570E-03	-3.7766E-01	3.4960E-05
1.0202E+00	1.1444E+00	4.9310E-05	-2.8304E-01	-2.1492E-01	-1.4739E-02	6.9419E-05	4.5452E-02	-3.5879E-01	3.3080E-05
1.3028E+00	1.1466E+00	4.9015E-05	-3.8682E-01	-1.1484E-01	3.7115E-03	3.7471E-05	-7.8780E-02	-9.8020E-02	1.7143E-05
1.6647E+00	1.1508E+00	4.2007E-05	-3.5033E-01	-5.6650E-02	1.3198E-02	3.7979E-05	-4.7169E-03	-2.8481E-01	1.7872E-05

Table F.3-3 Velocity measurements made at S/T = 0.40 with the UV system of the laser anemometer, plane 5

File E301770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.8

density (kilograms per meter cubed) = 1.099865

viscosity (meters squared per second) = 1.668759E-05

Atmospheric pressure (Pascals) = 94047

Velocity of undisturbed free stream (Uref, in m/s) = 27.48834

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.095774E-03

Estimated momentum thickness Reynolds number = 6746.694

Location of traverse; X/T = .4096 Z/T = -.8088 (Plane 4, S/T = 0.35)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.6938E-01				-1.6054E-02				
2.4788E-03	2.8785E-01				-1.6242E-02				
3.1870E-03	3.7522E-01				-2.2104E-02	3.6120E-04			
3.8952E-03	5.1027E-01				-3.0926E-02	9.3883E-04			
4.6034E-03	5.8787E-01				-3.3866E-02	1.4677E-03	-1.1586E-01	1.1358E+00	
5.6657E-03	6.5281E-01	1.4226E-02			-3.5970E-02	1.9500E-03	1.5730E-01	9.5003E-01	-1.8116E-03
7.4363E-03	7.1627E-01	1.3731E-02	-1.7925E-01	5.1707E-01	-3.8434E-02	3.4418E-03	1.0373E-01	4.2378E-01	-1.4858E-03
9.5609E-03	7.3287E-01	1.3159E-02	-1.0803E-01	4.3094E-02	-3.7021E-02	4.5242E-03	1.3850E-01	2.0993E-01	-1.5519E-03
1.2394E-02	7.4404E-01	1.2635E-02	-9.5913E-02	-3.3448E-02	-3.4760E-02	5.3323E-03	1.4229E-01	1.7042E-01	-1.4122E-03
1.5935E-02	7.4403E-01	1.1554E-02	-2.4931E-02	-6.1461E-02	-3.5222E-02	6.6278E-03	1.0889E-01	-2.7812E-02	-1.8900E-03
2.0361E-02	7.4567E-01	1.0914E-02	3.0163E-02	3.8099E-03	-3.0037E-02	9.2486E-03	1.1794E-01	1.7071E-02	-1.4774E-03
2.5850E-02	7.5038E-01	1.0816E-02	2.2999E-02	1.3388E-01	-3.2205E-02	1.1897E-02	1.5855E-01	-1.1768E-01	-1.2846E-03
3.2932E-02	7.4550E-01	1.1238E-02	-2.3813E-02	-3.0468E-02	-2.6404E-02	1.5696E-02	2.4805E-01	-2.4571E-01	-2.7955E-03
4.3201E-02	7.5438E-01	1.1992E-02	-6.3031E-02	-7.6798E-02	-1.9839E-02	2.0989E-02	2.3355E-01	-4.2684E-01	-3.6616E-03
5.4533E-02	7.7620E-01	1.2621E-02	-1.8463E-01	3.7423E-02	-3.5700E-02	2.5360E-02	3.6471E-01	-3.3118E-01	-3.4008E-03
6.9405E-02	8.2061E-01	1.3576E-02	-2.4024E-01	4.2140E-03	-2.7142E-02	2.8352E-02	3.3138E-01	-3.4088E-01	-3.7854E-03
8.8527E-02	8.8553E-01	1.1385E-02	-2.8422E-01	2.4885E-01	-2.3451E-02	2.2807E-02	4.7446E-01	8.1182E-04	-3.1415E-03
1.1296E-01	9.3437E-01	7.9661E-03	-2.5439E-01	4.1718E-01	-3.4096E-02	1.3353E-02	6.9630E-01	9.4352E-01	-9.3991E-04
1.4412E-01	9.6575E-01	4.9534E-03	-2.4673E-01	2.4272E-01	-3.7613E-02	5.3840E-03	4.5523E-01	8.0820E-01	-8.7983E-04
1.8449E-01	1.0099E+00	3.0847E-03	-2.5561E-01	-7.5049E-02	-4.9073E-02	2.6655E-03	1.8549E-01	8.2807E-02	-9.1519E-04
2.3513E-01	1.0415E+00	2.4153E-03	-3.4642E-01	-1.0011E-01	-5.0811E-02	1.8208E-03	2.6043E-01	1.5174E-01	-7.6884E-04
3.0028E-01	1.0816E+00	1.8733E-03	-4.6495E-01	4.2528E-02	-5.6815E-02	1.2691E-03	2.9902E-01	3.9827E-01	-6.8321E-04
3.8350E-01	1.1095E+00	1.3302E-03	-6.6149E-01	3.7622E-01	-4.7952E-02	9.9086E-04	2.2170E-01	4.2533E-01	-2.8694E-04
4.9009E-01	1.1518E+00	2.9288E-04	-1.1575E+00	2.3723E+00	-4.7301E-02	3.3706E-04	4.0852E-01	6.7063E-01	-8.7224E-05
6.2606E-01	1.1554E+00	6.0128E-05	-9.2535E-02	-2.3998E-01	-4.4626E-02	1.0094E-04	1.5558E-01	-2.4700E-01	4.0468E-05
7.9887E-01	1.1598E+00	6.1546E-05	-3.2096E-01	-1.7074E-01	-3.7434E-02	4.5407E-05	1.3908E-01	-2.7742E-01	3.4078E-05
1.0202E+00	1.1590E+00	5.6506E-05	-2.9852E-01	-1.8315E-01	-1.6923E-02	7.7635E-05	-1.0843E-01	-3.7009E-01	4.0673E-05
1.3028E+00	1.1599E+00	4.0834E-05	-2.5471E-01	-2.4328E-01	-1.0178E-02	5.9550E-05	8.8012E-02	-3.9124E-01	2.3626E-05
1.6636E+00	1.1640E+00	3.5253E-05	-2.2495E-01	-3.4811E-01	1.0447E-02	5.0200E-05	-3.0176E-01	1.7150E-01	1.8792E-05

Table F.3-4 Velocity measurements made at S/T = 0.35 with the UV system of the laser anemometer, plane 4

File E300770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.8

density (kilograms per meter cubed) = 1.10335

viscosity (meters squared per second) = 1.663488E-05

Atmospheric pressure (Pascals) = 94345

Velocity of undisturbed free stream (Uref, in m/s) = 27.48248

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.095948E-03

Estimated momentum thickness Reynolds number = 6766.916

Location of traverse; X/T = .4187 Z/T = -.7596 (Plane 4, S/T = 0.30)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
2.8329E-03	3.6788E-01				-2.2693E-02				
3.5411E-03	5.0861E-01				-2.8276E-02	3.8802E-04			
4.6034E-03	6.2308E-01	2.8700E-03			-3.7808E-02	4.8828E-04			-4.1706E-04
5.3116E-03	6.8137E-01	4.2212E-03			-4.7196E-02	8.8373E-04			-2.7822E-05
6.0198E-03	7.3473E-01				-5.0463E-02	1.8890E-03	2.1218E-01	7.6536E-01	
7.0822E-03	7.4695E-01	8.4441E-03	-2.3611E-01	8.0939E-01	-5.3559E-02	2.6527E-03	1.7455E-01	6.7098E-01	-4.3832E-04
8.8527E-03	7.7211E-01	7.8773E-03	-1.0892E-01	6.2455E-01	-5.2373E-02	3.6173E-03	2.2664E-01	5.1070E-01	-1.1129E-03
1.0977E-02	7.5905E-01	7.7906E-03	-3.1236E-02	4.4337E-01	-5.6766E-02	4.0865E-03	1.8993E-01	3.6597E-01	-1.4240E-03
1.3810E-02	7.6290E-01	7.4948E-03	-4.1119E-02	4.4887E-01	-5.4711E-02	4.8504E-03	3.0307E-01	1.9951E-01	-1.2598E-03
1.7351E-02	7.6401E-01	7.3163E-03	-7.1767E-02	4.4547E-01	-6.1044E-02	5.8611E-03	3.5281E-01	3.5580E-01	-5.5119E-04
2.1955E-02	7.7526E-01	6.7496E-03	-1.0348E-01	3.3055E-01	-6.8283E-02	6.6927E-03	3.4399E-01	2.5391E-01	-1.2081E-03
2.7975E-02	7.8415E-01	6.7379E-03	-1.4802E-01	2.5225E-01	-8.0062E-02	9.8203E-03	2.7981E-01	4.0705E-01	-6.1061E-04
3.4703E-02	7.7735E-01	9.0722E-03	-2.0259E-01	2.6202E-01	-7.8403E-02	1.4127E-02	4.9814E-01	3.1389E-01	-2.2204E-03
4.6388E-02	7.9932E-01	9.6590E-03	-3.1153E-01	2.3807E-01	-9.6318E-02	1.7695E-02	6.6288E-01	5.9327E-01	-2.7225E-03
5.5595E-02	8.2545E-01	1.0032E-02	-3.9549E-01	4.5575E-01	-1.1465E-01	1.7986E-02	7.7342E-01	1.0433E+00	-3.1568E-03
7.2238E-02	8.7050E-01	1.0801E-02	-3.0735E-01	3.2989E-01	-1.2347E-01	2.0514E-02	8.2712E-01	1.0102E+00	-1.8655E-03
8.9943E-02	9.2292E-01	9.1052E-03	-2.2386E-01	2.7460E-01	-1.1154E-01	1.5652E-02	8.3240E-01	1.1235E+00	-1.4040E-03
1.1438E-01	9.6700E-01	6.2947E-03	-1.6278E-01	2.5768E-01	-1.0793E-01	8.5165E-03	6.5143E-01	1.0977E+00	-1.1761E-03
1.4554E-01	9.9678E-01	4.3096E-03	-1.8695E-01	8.9004E-02	-8.3362E-02	4.9411E-03	4.7204E-01	6.8413E-01	-7.5895E-04
1.8591E-01	1.0360E+00	2.8238E-03	-2.4992E-01	-6.5532E-02	-7.6362E-02	2.4228E-03	2.4213E-01	1.1365E-01	-7.0040E-04
2.3725E-01	1.0654E+00	2.2133E-03	-3.5367E-01	9.7799E-03	-7.0523E-02	1.8579E-03	1.9866E-01	1.2707E-01	-6.6401E-04
3.0170E-01	1.0994E+00	1.7109E-03	-4.8899E-01	6.6844E-02	-6.5818E-02	1.3864E-03	1.5817E-01	2.8733E-01	-5.0767E-04
3.8527E-01	1.1380E+00	1.0575E-03	-6.8696E-01	5.8658E-01	-5.7442E-02	9.1743E-04	-6.7281E-04	7.5096E-01	-3.4995E-05
4.9115E-01	1.1697E+00	2.4411E-04	-1.1210E+00	2.2019E+00	-5.1755E-02	3.0123E-04	3.8413E-01	8.2942E-01	-4.3834E-08
6.2712E-01	1.1729E+00	5.4408E-05	-8.3603E-02	-1.9755E-01	-4.7847E-02	1.3042E-04	-3.5406E-02	-4.1090E-01	5.3130E-05
8.0241E-01	1.1683E+00	4.7072E-05	-1.1230E-01	-3.6155E-01	-3.8798E-02	7.8568E-05	1.1637E-01	-3.9702E-01	3.5039E-05
1.0432E+00	1.1683E+00	4.6762E-05	-1.7051E-01	-3.7745E-01	-1.6165E-02	5.7396E-05	-3.1644E-02	-2.6525E-01	2.8655E-05
1.3042E+00	1.1717E+00	5.6990E-05	-2.5240E-01	-3.2759E-01	-9.7698E-03	6.2525E-05	4.3048E-02	-3.4715E-01	3.6318E-05
1.6650E+00	1.1736E+00	4.7705E-05	-2.2748E-01	-3.6854E-01	1.2634E-03	5.8430E-05	7.0897E-02	-3.1039E-01	3.2826E-05

Table F.3-5 Velocity measurements made at S/T = 0.30 with the UV system of the laser anemometer, plane 4

File E299770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.1

density (kilograms per meter cubed) = 1.109156

viscosity (meters squared per second) = 1.647494E-05

Atmospheric pressure (Pascals) = 94300

Velocity of undisturbed free stream (Uref, in m/s) = 27.40349

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.098307E-03

Estimated momentum thickness Reynolds number = 6816.895

Location of traverse; X/T = .4279 Z/T = -.7107 (Plane 4, S/T = 0.25)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	3.5344E-01				-2.1989E-02				
2.1246E-03	3.7657E-01				-2.0793E-02				
2.8329E-03	4.6694E-01				-2.3905E-02				
3.5411E-03	6.2563E-01				-3.0378E-02	1.8185E-04			
4.6034E-03	7.3939E-01				-4.3499E-02				
5.6657E-03	8.0339E-01				-6.3202E-02	9.7258E-04			
7.4363E-03	8.0704E-01	5.1262E-03	-1.7809E-01	4.2919E-01	-6.5752E-02	1.6453E-03	7.3959E-02	7.5174E-01	-1.1766E-03
9.5609E-03	8.2119E-01	4.3570E-03	-1.2536E-01	3.2058E-01	-6.8485E-02	2.2880E-03	2.0078E-01	9.1083E-01	-4.1719E-04
1.2394E-02	8.2389E-01	4.2537E-03	-8.7024E-02	2.5180E-01	-7.4049E-02	2.7664E-03	2.0866E-01	7.7082E-01	-4.0530E-04
1.5935E-02	8.3090E-01	4.1692E-03	-1.1144E-01	2.0247E-01	-8.1057E-02	3.2724E-03	2.0838E-01	7.7528E-01	-5.8716E-04
2.0184E-02	8.4176E-01	4.1426E-03	-2.0426E-01	2.2409E-01	-8.5711E-02	3.8910E-03	1.9069E-01	7.5267E-01	-1.3991E-03
2.6027E-02	8.5950E-01	4.2688E-03	-1.5455E-01	2.1699E-01	-9.6429E-02	4.2847E-03	1.5296E-01	6.2194E-01	-1.7748E-03
3.2932E-02	8.4948E-01	5.4601E-03	-3.2040E-01	3.2429E-01	-1.1287E-01	4.7416E-03	5.4667E-02	1.1479E-01	-2.6610E-03
4.4972E-02	8.7493E-01	5.5906E-03	-4.5530E-01	5.9497E-01	-1.3138E-01	5.0494E-03	-9.2624E-02	5.2822E-03	-2.7378E-03
5.4178E-02	8.9197E-01	5.9145E-03	-3.6572E-01	4.7700E-01	-1.4043E-01	7.2652E-03	-1.4795E-01	6.1309E-01	-1.8553E-03
6.9051E-02	9.1266E-01	6.5690E-03	-3.0841E-01	5.8294E-01	-1.5480E-01	8.4941E-03	-2.1161E-01	6.4326E-01	-1.0723E-03
8.8173E-02	9.5173E-01	6.2014E-03	-5.9631E-02	3.2498E-01	-1.4319E-01	6.6638E-03	1.9606E-02	4.9816E-01	-8.3258E-04
1.1296E-01	9.8996E-01	4.7523E-03	-1.1659E-01	1.9301E-01	-1.2716E-01	4.5609E-03	2.1015E-01	3.5947E-01	-1.1732E-03
1.4448E-01	1.0254E+00	3.1159E-03	-2.1612E-01	-2.1887E-02	-1.0862E-01	2.8478E-03	3.3259E-01	3.4564E-01	-1.4977E-03
1.8414E-01	1.0608E+00	2.4241E-03	-2.6526E-01	-1.1245E-01	-9.9979E-02	2.2933E-03	1.9289E-01	1.7746E-01	-7.6154E-04
2.3513E-01	1.0914E+00	2.0334E-03	-3.6043E-01	1.4157E-03	-9.1324E-02	1.7037E-03	2.5412E-01	7.0633E-02	-6.1418E-04
3.0028E-01	1.1228E+00	1.5370E-03	-4.6960E-01	4.3301E-02	-8.3057E-02	1.2395E-03	2.9364E-01	2.3583E-01	-4.7324E-04
3.8350E-01	1.1580E+00	8.5831E-04	-7.6315E-01	3.8131E-01	-7.8790E-02	7.2189E-04	5.2589E-01	3.8115E-01	
4.8973E-01	1.1860E+00	2.0326E-04	-1.0273E+00	2.1556E+00	-6.7200E-02	2.8798E-04	1.7354E-01	4.1121E-01	6.4963E-05
6.2571E-01	1.1909E+00	5.7103E-05	-7.7758E-02	-2.2849E-01	-5.4433E-02	1.0230E-04	7.3458E-02	-3.1235E-01	3.7963E-05
7.9887E-01	1.1935E+00	4.4257E-05	-2.2508E-01	-2.4662E-01	-4.4581E-02	5.0485E-05	1.6573E-01	-2.1521E-01	2.1741E-05
1.0202E+00	1.1931E+00	5.4724E-05	-2.3001E-01	-3.1230E-01	-2.4582E-02	5.6322E-05	2.1407E-02	-2.9431E-01	2.9480E-05
1.3028E+00	1.1927E+00	4.6528E-05	-2.6710E-01	-3.1908E-01	-1.4245E-02	4.9517E-05	1.1778E-01	-3.9773E-01	2.5624E-05
1.6636E+00	1.1949E+00	4.0438E-05	-2.3588E-01	-3.0980E-01	8.9901E-03	4.9364E-05	-1.7513E-01	2.3746E-03	2.2273E-05

Table F.3-6 Velocity measurements made at S/T = 0.25 with the UV system of the laser anemometer, plane 4

File E298770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.1

density (kilograms per meter cubed) = 1.109332

viscosity (meters squared per second) = 1.647232E-05

Atmospheric pressure (Pascals) = 94315

Velocity of undisturbed free stream (Uref, in m/s) = 27.4209

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097767E-03

Estimated momentum thickness Reynolds number = 682! 446

Location of traverse; X/T = .4371 Z/T = -.6613 (Plane 4, S, i = 0.20)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	3.7264E-01				-1.7965E-02				
2.1246E-03	4.2449E-01				-2.2876E-02				
3.1870E-03	7.5831E-01				-4.3443E-02	2.1345E-05			
3.8952E-03	8.0058E-01	5.3310E-03			-5.2578E-02	2.8885E-04			7.8626E-04
4.6034E-03	8.3011E-01	4.2176E-03			-6.5207E-02	2.4587E-04			5.1835E-04
6.0198E-03	8.5176E-01	4.5644E-03	-4.4647E-01	1.2524E+00	-6.1634E-02	9.7783E-04	-1.9285E-01	1.4715E+00	-9.4165E-04
7.4363E-03	8.5779E-01	4.2403E-03	-2.5311E-01	4.8807E-01	-6.7365E-02	1.2265E-03	-1.4460E-01	1.4543E+00	-7.1713E-04
9.5609E-03	8.7351E-01	3.2944E-03	-7.2548E-02	2.6737E-01	-7.0311E-02	1.4923E-03	-7.8815E-02	9.2984E-01	-1.1176E-04
1.2394E-02	8.7873E-01	3.1431E-03	-5.9031E-02	2.1042E-01	-7.5672E-02	1.8706E-03	-3.1280E-02	7.5492E-01	-3.1367E-04
1.6289E-02	8.8999E-01	3.0184E-03	-6.4849E-02	8.5480E-02	-8.1282E-02	2.2591E-03	-1.3606E-02	6.6178E-01	-3.8141E-04
2.0184E-02	9.0856E-01	3.0377E-03	-1.0475E-01	1.7200E-01	-8.2154E-02	2.4359E-03	-1.3270E-02	2.9277E-01	-4.1436E-04
2.5850E-02	9.2456E-01	3.0209E-03	-6.9177E-02	6.2294E-02	-9.1799E-02	2.8094E-03	-6.1168E-02	3.6652E-01	-3.2608E-04
3.2932E-02	9.0185E-01	3.2695E-03	-7.3362E-02	6.5027E-02	-1.0414E-01	3.7425E-03	-5.8882E-02	4.0282E-01	-2.3771E-04
4.2493E-02	9.3338E-01	3.2174E-03	-1.9124E-01	1.4384E-01	-1.1266E-01	3.6221E-03	-6.6273E-02	1.3226E-01	-5.2673E-04
5.4178E-02	9.5478E-01	3.0190E-03	-1.4830E-01	3.1370E-02	-1.2361E-01	3.9867E-03	-1.3696E-01	3.7333E-01	-6.7963E-04
6.9051E-02	9.7685E-01	3.3258E-03	-1.0232E-01	1.5389E-01	-1.3668E-01	3.9331E-03	-1.6989E-01	3.3655E-01	-6.9331E-04
8.8173E-02	9.9358E-01	3.3112E-03	-1.1914E-01	3.3734E-02	-1.3784E-01	3.6477E-03	1.1127E-02	2.0975E-01	-8.4463E-04
1.1296E-01	1.0238E+00	3.0422E-03	-1.5068E-01	4.6900E-02	-1.3273E-01	2.8643E-03	1.6655E-01	1.5947E-01	-7.2938E-04
1.4554E-01	1.0553E+00	2.4932E-03	-2.2963E-01	-4.1528E-02	-1.2832E-01	2.5245E-03	2.2113E-01	1.5859E-01	-4.7707E-04
1.8414E-01	1.0906E+00	2.1622E-03	-2.7507E-01	-1.1279E-01	-1.2092E-01	2.0602E-03	2.4044E-01	1.7287E-01	-4.2234E-04
2.3513E-01	1.1205E+00	1.7379E-03	-3.5596E-01	-6.3533E-02	-1.1010E-01	1.5817E-03	2.5486E-01	2.6864E-01	-4.8009E-04
3.0028E-01	1.1484E+00	1.4069E-03	-3.8771E-01	2.3427E-01	-1.0221E-01	1.1657E-03	2.5613E-01	2.9910E-01	-4.4282E-04
3.8350E-01	1.1815E+00	7.0455E-04	-8.3182E-01	6.6647E-01	-9.7510E-02	6.9067E-04	4.5168E-01	5.7591E-01	-1.6524E-04
4.8973E-01	1.2070E+00	1.6124E-04	-7.4474E-01	1.7011E+00	-8.7858E-02	2.4450E-04	1.8318E-01	5.7208E-01	1.4903E-05
6.2571E-01	1.2092E+00	6.6777E-05	-1.8820E-01	-2.2684E-01	-5.7234E-02	8.8293E-05	-2.7589E-01	5.7088E-02	3.0646E-05
7.9887E-01	1.2096E+00	4.6102E-05	-2.0642E-01	-2.5406E-01	-4.4231E-02	7.0274E-05	-8.4112E-02	-3.2041E-01	3.2521E-05
1.0220E+00	1.2086E+00	4.5722E-05	-1.4925E-01	-3.4384E-01	-2.8420E-02	5.7834E-05	-2.0313E-01	-1.2462E-01	1.9439E-05
1.3031E+00	1.2094E+00	4.9718E-05	-2.7999E-01	-1.6341E-01	-1.5650E-02	5.1240E-05	-8.2241E-02	1983E-01	2.5674E-05
1.6636E+00	1.2080E+00	6.6694E-05	-4.4214E-01	-3.0636E-02	-1.5329E-03	5.7974E-05	-4.1208E-02	-4.1159E-01	3.8600E-05

Table F.3-7 Velocity measurements made at S/T = 0.20 with the UV system of the laser anemometer, plane 4

File E297770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.2

density (kilograms per meter cubed) = 1.101726

viscosity (meters squared per second) = 1.659035E-05

Atmospheric pressure (Pascals) = 93700

Velocity of undisturbed free stream (Uref, in m/s) = 27.43819

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09727E-03

Estimated momentum thickness Reynolds number = 6776.329

Location of traverse; X/T = .4463 Z/T = -.6122 (Plane 4, S/T = 0.15)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	3.6008E-01				-1.3618E-02				
2.4788E-03	4.0264E-01				-1.9297E-02				
3.1870E-03	6.0114E-01				-2.8615E-02				
3.8952E-03	8.2495E-01				-4.7983E-02				
4.6034E-03	8.6887E-01	3.1853E-03			-6.5112E-02				
6.0198E-03	8.9252E-01	5.8958E-03	-1.1240E+00	3.1018E+00	-5.7594E-02	7.4762E-04	-1.6687E-01	2.7847E+00	-1.0674E-03
7.0822E-03	9.074E-01	4.8831E-03	-1.1056E+00	3.6988E+00	-6.1777E-02	9.7411E-04	-7.1188E-02	2.1654E+00	-5.6679E-04
8.4986E-03	8.9499E-01	3.7817E-03	-4.4690E-01	1.3011E+00	-6.6194E-02	1.1215E-03	-3.0915E-02	1.5749E+00	-6.7717E-04
1.0977E-02	9.1966E-01	3.4288E-03	-3.1788E-01	1.0685E+00	-7.0167E-02	1.3070E-03	-3.5260E-02	1.0226E+00	-3.1236E-04
1.4518E-02	9.3345E-01	2.5646E-03	-8.4596E-02	3.5296E-01	-7.5181E-02	1.6678E-03	7.2432E-02	1.1685E+00	-2.2057E-04
1.7351E-02	9.4151E-01	2.4704E-03	-6.9360E-02	2.9287E-01	-7.8995E-02	1.8297E-03	1.7295E-01	9.0316E-01	-1.3137E-04
2.1246E-02	9.5496E-01	2.4548E-03	-7.8947E-02	3.0515E-01	-8.0349E-02	2.0619E-03	2.1347E-01	5.5151E-01	-4.2457E-04
2.6912E-02	9.6972E-01	2.5291E-03	2.3362E-02	3.7036E-01	-8.8659E-02	2.5435E-03	1.1563E-01	4.7421E-01	-2.6681E-04
3.5057E-02	9.6540E-01	2.5231E-03	-1.0575E-01	2.7629E-01	-9.8855E-02	2.8754E-03	7.3456E-02	3.7316E-01	-1.8882E-04
4.3909E-02	9.8418E-01	2.3122E-03	-3.9922E-02	9.9358E-02	-1.1003E-01	3.0530E-03	9.3829E-02	2.9006E-01	-4.5243E-04
5.5241E-02	9.9796E-01	2.2852E-03	-4.6256E-02	7.1922E-02	-1.1924E-01	2.9691E-03	1.4618E-01	2.1715E-01	-6.4767E-04
7.0467E-02	1.0118E+00	2.2564E-03	-8.9150E-02	1.2275E-01	-1.2975E-01	3.1554E-03	8.2399E-02	2.7021E-01	-6.3683E-04
8.9589E-02	1.0328E+00	2.2706E-03	-1.1695E-01	-4.1677E-02	-1.3828E-01	2.9748E-03	1.1877E-01	1.6416E-01	-8.3489E-04
1.1579E-01	1.0530E+00	2.2146E-03	-1.4200E-01	-2.7192E-02	-1.4152E-01	2.5239E-03	1.7395E-01	1.3576E-01	-7.4835E-04
1.4518E-01	1.0786E+00	2.0669E-03	-2.0737E-01	-9.9536E-02	-1.4521E-01	2.2821E-03	2.0314E-01	1.1311E-01	-6.6985E-04
1.8520E-01	1.1107E+00	1.7861E-03	-2.8944E-01	3.0513E-02	-1.6197E-01	1.9504E-03	2.1368E-01	1.9895E-01	-5.8127E-04
2.3619E-01	1.1441E+00	1.5689E-03	-3.4573E-01	3.0656E-02	-1.4119E-01	1.5780E-03	2.5754E-01	3.4394E-01	-4.7342E-04
3.0205E-01	1.1676E+00	1.1999E-03	-5.1737E-01	2.4721E-01	-1.2977E-01	1.1232E-03	2.7875E-01	3.9107E-01	-2.8886E-04
3.8492E-01	1.2006E+00	6.9934E-04	-7.0120E-01	7.7283E-01	-1.2095E-01	7.6865E-04	-2.4113E-02	7.4850E-01	-1.0827E-04
4.9079E-01	1.2235E+00	1.6400E-04	-4.8295E-01	1.1408E+00	-9.9622E-02	2.2579E-04	5.8813E-03	6.6155E-01	2.5752E-05
6.2677E-01	1.2229E+00	7.2834E-05	-1.7592E-01	-2.1233E-01	-7.5529E-02	8.7201E-05	-1.9282E-03	-1.4953E-01	3.1738E-05
7.9993E-01	1.2244E+00	5.6959E-05	-3.1381E-01	-4.0342E-02	-5.0986E-02	6.7697E-05	-6.0946E-02	-3.2832E-01	2.7638E-05
1.0212E+00	1.2299E+00	6.2802E-05	-2.9575E-01	-1.0960E-01	3.3682E-02	7.3653E-05	-5.3910E-02	-2.4781E-01	3.8923E-05
1.3038E+00	1.2250E+00	5.0430E-05	-2.4782E-01	-2.3457E-01	-1.8718E-02	5.6974E-05	-8.7098E-04	-2.9008E-01	2.9546E-05
1.6647E+00	1.2212E+00	5.3596E-05	-1.7055E-01	-2.8181E-01	-5.1524E-03	6.0321E-05	-1.1087E-01	-2.5839E-01	3.4040E-05

Table F.3-8 Velocity measurements made at S/T = 0.15 with the UV system of the laser anemometer, plane 4

File E296770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.104059

viscosity (meters squared per second) = 1.654668E-05

Atmospheric pressure (Pascals) = 93835

Velocity of undisturbed free stream (Uref, in m/s) = 27.41561

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097945E-03

Estimated momentum thickness Reynolds number = 6789.74

Location of traverse; X/T = .4554 Z/T = -.563 (Plane 4, S/T = 0.10)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
4.2493E-03	8.6280E-01	3.1736E-03			-3.4723E-02				
4.9575E-03	9.2261E-01				-4.7563E-02				
5.8428E-03	9.3314E-01	7.8819E-03	-1.5600E+00	3.6929E+00	-5.1312E-02	4.1150E-04	5.2647E-01	1.2059E+00	-6.7242E-04
6.7280E-03	9.5024E-01	5.5213E-03	-1.4329E+00	3.9490E+00	-5.3532E-02	5.0996E-04	4.2026E-01	1.6374E+00	-9.3565E-04
7.7904E-03	9.6299E-01	4.2896E-03	-1.0.92E+00	3.0210E+00	-5.9218E-02	7.4981E-04	5.5227E-02	1.5835E+00	-1.2597E-04
9.5609E-03	9.5604E-01	3.0153E-03	-2.9487E-01	6.8960E-01	-6.5101E-02	9.7641E-04	2.4287E-02	1.0958E+00	-3.4445E-04
1.2394E-02	9.8913E-01	2.1120E-03	-1.0315E-01	3.4869E-01	-7.5937E-02	1.5204E-03	-7.4216E-02	1.0582E+00	2.7146E-04
1.4518E-02	9.9291E-01	2.1235E-03	-1.2638E-01	2.7637E-01	-7.7746E-02	1.3657E-03	2.1888E-01	4.5851E-01	5.0764E-05
1.8059E-02	1.0069E+00	1.9975E-03	-1.2615E-01	1.2907E-01	-8.3855E-02	1.8133E-03	1.8147E-01	3.8954E-01	-7.9856E-05
2.2309E-02	1.0211E+00	1.9908E-03	4.7477E-03	1.9558E-01	-9.5897E-02	2.2422E-03	1.8049E-01	3.4960E-01	-4.4237E-05
2.8152E-02	1.0283E+00	1.8102E-03	-7.5295E-02	5.0148E-02	-1.0453E-01	2.4396E-03	1.6234E-01	3.5453E-01	-2.0039E-04
3.5057E-02	1.0192E+00	1.8300E-03	-1.4279E-01	3.2638E-02	-1.1290E-01	2.9381E-03	1.5471E-01	2.5007E-01	-6.6325E-05
4.4618E-02	1.0404E+00	1.8220E-03	-4.2094E-02	4.0952E-02	-1.2933E-01	3.2419E-03	7.5742E-02	2.3599E-01	1.9044E-04
5.6303E-02	1.0463E+00	1.7530E-03	-7.5937E-02	2.2738E-02	-1.4087E-01	3.0553E-03	4.4897E-02	1.5891E-01	-1.6819E-05
7.1176E-02	1.0661E+00	1.7517E-03	-1.4601E-01	1.2858E-01	-1.5315E-01	3.2246E-03	-2.1004E-02	2.1416E-01	-1.2414E-04
9.1714E-02	1.0772E+00	1.7732E-03	-1.1879E-01	5.7656E-02	-1.6453E-01	2.8838E-03	7.1838E-02	3.4519E-01	-4.7976E-04
1.1579E-01	1.0966E+00	1.6481E-03	-2.1862E-01	1.6236E-02	-1.6925E-01	2.4229E-03	9.4632E-02	1.6228E-01	-3.6508E-04
1.4802E-01	1.1217E+00	1.5113E-03	-2.1863E-01	4.6811E-02	-1.7994E-01	2.2490E-03	-7.0995E-02	2.8786E-01	-8.4083E-05
1.8661E-01	1.1517E+00	1.4431E-03	-2.8633E-01	1.0462E-02	-1.7300E-01	1.7150E-03	9.6331E-02	3.4337E-01	-4.1100E-04
2.3725E-01	1.1746E+00	1.1632E-03	-3.5562E-01	3.2813E-02	-1.7423E-01	1.4225E-03	1.7270E-01	2.7422E-01	-2.3148E-04
3.0241E-01	1.1998E+00	9.3681E-04	-4.8606E-01	2.3172E-01	-1.6034E-01	1.0403E-03	1.1765E-01	4.1131E-01	-8.8248E-05
3.8562E-01	1.2273E+00	4.2946E-04	-7.9407E-01	1.0584E+00	-1.4070E-01	5.3222E-04	1.3560E-01	5.5118E-01	-2.3057E-05
4.9292E-01	1.2437E+00	1.1071E-04	-2.2442E-01	2.5340E-01	-1.1690E-01	1.8260E-04	-1.9376E-01	2.2919E-01	2.2662E-05
6.2783E-01	1.2464E+00	6.8477E-05	-1.9575E-01	-1.5276E-01	-7.8893E-02	9.2558E-05	-1.5799E-01	-2.0555E-01	3.1898E-05
8.0170E-01	1.2461E+00	4.1767E-05	-1.8329E-01	-9.7420E-02	-5.6453E-02	7.5084E-05	-5.3305E-02	-3.6892E-01	2.8350E-05
1.0266E+00	1.2476E+00	4.1358E-05	-1.9780E-01	-2.3914E-01	-3.8611E-02	6.2514E-05	-9.1071E-02	-3.8946E-01	2.1039E-05
1.3049E+00	1.2440E+00	6.0213E-05	-2.9814E-01	-1.4530E-01	-2.6648E-02	5.3185E-05	4.0736E-02	-3.6124E-01	2.8301E-05
1.6657E+00	1.2486E+00	5.3812E-05	-2.8350E-01	-6.9549E-02	-9.3822E-03	4.2516E-05	2.4222E-02	-2.4609E-01	2.3092E-05

Table F.3-9 Velocity measurements made at S/T = 0.10 with the UV system of the laser anemometer, plane 4

File E295770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.3

density (kilograms per meter cubed) = 1.114342

viscosity (meters squared per second) = 1.636404E-05

Atmospheric pressure (Pascals) = 94485

Velocity of undisturbed free stream (Uref, in m/s) = 27.32083

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.100784E-03

Estimated momentum thickness Reynolds number = 6846.527

Location of traverse; X/T = .4646 Z/T = -.5139 (Plane 4, S/T = 0.05)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	5.7670E-01				-1.7093E-02				
2.1246E-03	5.5012E-01				-1.3703E-02				
2.8329E-03	6.4924E-01				-2.2259E-02				
3.5411E-03	8.3408E-01				-2.8153E-02	2.7603E-05			
4.6034E-03	1.0413E+00				-4.2631E-02				
5.6657E-03	1.1063E+00				-6.1493E-02	1.6490E-04			
7.7904E-03	1.1238E+00	2.3944E-03	1.0084E-01	6.0936E-01	-9.6808E-02	1.5768E-03	-6.8553E-01	2.4386E+00	4.7970E-04
9.5609E-03	1.1282E+00	2.2975E-03	4.6247E-02	3.4886E-01	-1.1613E-01	2.3947E-03	-4.7424E-01	9.5146E-01	2.5079E-04
1.2394E-02	1.1203E+00	2.0729E-03	-5.2247E-02	5.5255E-01	-1.3818E-01	3.3571E-03	-3.4989E-01	4.9597E-01	2.9917E-04
1.5935E-02	1.0963E+00	1.8410E-03	-1.0428E-01	2.7680E-01	-1.4267E-01	3.3226E-03	-1.5360E-01	1.8144E-01	1.6452E-04
2.0361E-02	1.0999E+00	1.7221E-03	-1.4687E-01	2.4323E-01	-1.6485E-01	3.7781E-03	-1.6988E-01	1.6238E-01	2.7580E-04
2.5850E-02	1.1067E+00	1.6680E-03	-1.7256E-01	2.8015E-01	-1.9264E-01	4.4853E-03	-1.0114E-01	8.3222E-02	3.4666E-04
3.2932E-02	1.1216E+00	1.7044E-03	-2.0564E-01	3.1421E-01	-2.2873E-01	5.5003E-03	-1.8380E-01	2.3902E-02	3.4078E-04
4.2847E-02	1.1087E+00	1.5099E-03	-1.3269E-01	1.1071E-01	-2.0438E-01	4.5231E-03	-1.0897E-01	-1.9078E-02	1.7164E-04
5.4178E-02	1.1235E+00	1.4722E-03	-1.1711E-01	1.2789E-01	-2.3050E-01	4.9469E-03	-1.2991E-01	-1.7352E-03	5.1064E-04
6.9405E-02	1.1214E+00	1.4709E-03	-1.8721E-01	1.0749E-01	-2.1375E-01	3.6920E-03	-3.6803E-02	3.4657E-02	1.4904E-05
8.8173E-02	1.1479E+00	1.3628E-03	-7.3615E-02	3.2168E-01	-2.4626E-01	3.9979E-03	-2.1449E-01	2.3452E-01	4.0995E-04
1.1331E-01	1.1567E+00	1.2382E-03	-1.8617E-01	7.7411E-02	-2.4593E-01	3.4742E-03	-2.2076E-01	2.9079E-01	2.2378E-04
1.4412E-01	1.1744E+00	1.2443E-03	-1.6256E-01	1.9825E-01	-2.3857E-01	2.5213E-03	-1.8552E-01	2.2828E-01	-9.0439E-05
1.8414E-01	1.1860E+00	1.0952E-03	-2.8716E-01	1.5950E-01	-2.2818E-01	2.0505E-03	-2.2125E-01	4.3628E-01	-6.0419E-05
2.3513E-01	1.2055E+00	8.4277E-04	-3.9004E-01	9.5340E-02	-2.0996E-01	1.3328E-03	-1.4467E-02	9.8872E-02	-1.1489E-04
3.0028E-01	1.2410E+00	5.2879E-04	-5.4165E-01	5.5226E-01	-1.9163E-01	9.6546E-04	-2.3559E-01	2.9692E-01	9.5971E-05
3.8350E-01	1.2594E+00	2.6188E-04	-3.7429E-01	7.6722E-01	-1.6541E-01	5.2062E-04	-4.8586E-01	4.9680E-01	2.2521E-05
4.8973E-01	1.2728E+00	1.0710E-04	-7.8715E-02	-3.0446E-02	-1.2537E-01	1.9875E-04	-4.8944E-01	4.9860E-01	2.7701E-05
6.2571E-01	1.2668E+00	7.9107E-05	-1.3649E-01	-3.1700E-01	-8.3882E-02	9.4054E-05	2.8604E-02	-2.0545E-01	3.7043E-05
7.9958E-01	1.2769E+00	6.8653E-05	-1.4650E-01	-3.0482E-01	-6.0200E-02	6.3214E-05	6.8876E-02	-3.0206E-01	3.2561E-05
1.0205E+00	1.2699E+00	5.9428E-05	-1.2551E-01	-3.5342E-01	-3.5838E-02	5.9187E-05	4.4946E-03	-3.2414E-01	2.9172E-05
1.3028E+00	1.2757E+00	5.2919E-05	-1.7678E-01	-1.8742E-01	-2.2625E-02	6.0085E-05	-2.5623E-02	-2.9686E-01	2.3834E-05
1.6707E+00	1.2752E+00	4.0267E-05	-1.0730E-01	-2.1993E-01	-3.7000E-03	4.9817E-05	-7.7562E-02	-2.2714E-01	2.1216E-05

Table F.3-10 Velocity measurements made at S/T = 0.05 with the UV system of the laser anemometer, plane 4

File E263770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.092133

viscosity (meters squared per second) = 1.677092E-05

Atmospheric pressure (Pascals) = 93135

Velocity of undisturbed free stream (Uref, in m/s) = 27.60061

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092436E-03

Estimated momentum thickness Reynolds number = 6735.095

Location of traverse; X/T = .361 Z/T = -1.0689 (Plane 4, S/T = 0.61)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.8329E-03	-1.9998E-01		
3.5411E-03	-2.3113E-01		
4.2493E-03	-2.5136E-01		
5.3116E-03	-2.6537E-01	5.8488E-03	-8.9091E-04
6.3739E-03	-3.0552E-01	6.0548E-03	-3.3641E-04
8.1443E-03	-3.1720E-01	6.9607E-03	5.0792E-04
1.0446E-02	-3.3547E-01	5.4970E-03	-9.1629E-04
1.3279E-02	-3.4826E-01	6.7372E-03	1.0608E-03
1.6643E-02	-3.4472E-01	4.8570E-03	1.0505E-03
2.0892E-02	-3.6503E-01	4.7906E-03	1.1417E-03
2.7266E-02	-3.6904E-01	4.4392E-03	7.8330E-04
3.3640E-02	-3.5427E-01	4.2781E-03	7.3335E-04
4.3201E-02	-3.3727E-01	4.1843E-03	1.0059E-03
5.4887E-02	-3.2422E-01	4.2452E-03	9.9877E-04
7.1176E-02	-2.9499E-01	3.7610E-03	8.4259E-04
8.9589E-02	-2.7787E-01	3.3134E-03	7.3431E-04
1.1367E-01	-2.4950E-01	3.1375E-03	6.9090E-04
1.4554E-01	-2.4243E-01	2.8126E-03	3.3764E-04
1.8484E-01	-2.2513E-01	2.6120E-03	5.2165E-04
2.3584E-01	-2.1497E-01	2.3544E-03	5.4507E-04
3.0099E-01	-2.0005E-01	2.0906E-03	3.9727E-04
3.8421E-01	-1.9185E-01	1.5272E-03	4.0822E-04
4.9044E-01	-1.6201E-01	2.0077E-04	1.1079E-04
6.2642E-01	-1.6312E-01		
7.9958E-01	-1.7517E-01	1.4533E-04	
1.0223E+00	-1.7920E-01	1.1333E-04	
1.3035E+00	-1.3852E-01		
1.6643E+00	-1.5005E-01		

Table F.3-11 Velocity measurements made at S/T = 0.61 with the UW system of the laser anemometer, plane 4

File E264770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 23.2

density (kilograms per meter cubed) = 1.094613

viscosity (meters squared per second) = 1.669817E-05

Atmospheric pressure (Pascals) = 93095

Velocity of undisturbed free stream (Uref, in m/s) = 27.54947

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093954E-03

Estimated momentum thickness Reynolds number = 6754.409

Location of traverse; X/T = .382 Z/T = -.9562 (Plane 4, S/T = 0.50)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.1870E-03	-2.6163E-01		
3.8952E-03	-2.8418E-01		
4.9575E-03	-3.1979E-01	1.2728E-02	-4.0979E-03
6.0198E-03	-3.4638E-01	1.3523E-02	-2.2535E-03
7.0822E-03	-3.7179E-01	1.3474E-02	-2.0709E-03
8.4986E-03	-3.9664E-01	1.3715E-02	-1.7787E-03
1.1154E-02	-4.2810E-01	1.4869E-02	1.5535E-03
1.3456E-02	-4.5115E-01	1.3585E-02	2.5989E-03
1.7705E-02	-4.5404E-01	1.3400E-02	1.3849E-03
2.1246E-02	-4.6676E-01	1.3577E-02	1.8380E-03
2.6912E-02	-4.5769E-01	1.3765E-02	3.3284E-03
3.4348E-02	-4.4917E-01	9.3538E-03	2.7057E-03
4.3909E-02	-4.2996E-01	8.7876E-03	3.2396E-03
5.5241E-02	-3.8252E-01	8.3400E-03	2.5824E-03
7.0822E-02	-3.4447E-01	7.1345E-03	1.9608E-03
8.9235E-02	-3.1929E-01	6.6912E-03	1.4489E-03
1.1402E-01	-2.8714E-01	4.9781E-03	1.2268E-03
1.4518E-01	-2.4725E-01	3.7782E-03	4.5020E-04
1.8520E-01	-2.2553E-01	2.8234E-03	2.2937E-04
2.3619E-01	-1.9083E-01	2.4749E-03	5.3028E-04
3.0135E-01	-1.8709E-01	2.2802E-03	4.9672E-04
3.8456E-01	-1.8568E-01	6.2408E-04	-1.9099E-04
4.9256E-01	-1.8853E-01	1.8723E-04	1.5522E-04
6.2712E-01	-1.8833E-01	1.0001E-04	
7.9993E-01	-1.8749E-01		
1.0212E+00	-1.8219E-01		
1.3368E+00	-1.9358E-01		
1.6686E+00	-1.8982E-01		

Table F.3-12 Velocity measurements made at S/T = 0.50 with the UW system of the laser anemometer, plane 4

File E265770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.097175

viscosity (meters squared per second) = 1.673716E-05

Atmospheric pressure (Pascals) = 93880

Velocity of undisturbed free stream (Uref, in m/s) = 27.61168

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092108E-03

Estimated momentum thickness Reynolds number = 6750.844

Location of traverse; X/T = .4004 Z/T = -.8579 (Plane 4, S/T = 0.40)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.0099E-03	-4.0852E-01		
3.7181E-03	-4.4061E-01		
4.7805E-03	-4.4225E-01		
5.8428E-03	-4.6361E-01	2.8158E-02	4.3524E-03
7.2592E-03	-5.0476E-01	2.7058E-02	4.8369E-03
9.0297E-03	-5.1078E-01	2.8623E-02	5.0370E-03
1.0800E-02	-5.4506E-01	3.0209E-02	8.7147E-03
1.3279E-02	-5.5109E-01	3.2470E-02	1.1756E-02
1.7174E-02	-5.7628E-01	3.0721E-02	1.1011E-02
2.1069E-02	-5.8254E-01	2.9810E-02	1.0460E-02
2.6735E-02	-5.8065E-01	2.6024E-02	9.4488E-03
3.4171E-02	-5.8532E-01	2.4605E-02	9.6480E-03
4.3732E-02	-5.7631E-01	2.0803E-02	7.8756E-03
5.5064E-02	-5.1302E-01	1.8914E-02	6.8056E-03
6.9936E-02	-4.5756E-01	1.9185E-02	6.0832E-03
9.2599E-02	-3.4186E-01	1.5432E-02	2.8089E-03
1.1739E-01	-2.8146E-01	1.0926E-02	9.6028E-04
1.4501E-01	-2.4614E-01	5.3685E-03	-2.1772E-04
1.8573E-01	-2.5209E-01	3.4692E-03	9.9005E-04
2.3601E-01	-2.2670E-01	3.1705E-03	9.4275E-04
3.0335E-01	-2.2508E-01	2.2262E-03	8.0380E-04
3.8474E-01	-2.0940E-01	8.5916E-04	-1.4382E-04
4.9062E-01	-2.1239E-01	4.9963E-04	2.9625E-04
6.2553E-01	-2.3092E-01	1.5896E-04	
7.9975E-01	-2.4079E-01	1.3211E-04	
1.0221E+00	-2.2970E-01		
1.3036E+00	-2.3016E-01		
1.6645E+00	-2.1874E-01		

Table F.3-13 Velocity measurements made at S/T = 0.40 with the UW system of the laser anemometer, plane 4

File E266770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.116884

viscosity (meters squared per second) = 1.635668E-05

Atmospheric pressure (Pascals) = 94925

Velocity of undisturbed free stream (Uref, in m/s) = 27.56703

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093433E-03

Estimated momentum thickness Reynolds number = 6898.945

Location of traverse; X/T = .4096 Z/T = -.8088 (Plane 4, S/T = 0.35)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.8329E-03	-2.7179E-01		
3.7181E-03	-3.9693E-01		
4.9575E-03	-4.7087E-01	3.7769E-02	1.9657E-03
6.0198E-03	-5.2374E-01	4.1381E-02	6.1310E-03
7.4363E-03	-5.8660E-01	4.3029E-02	4.1956E-03
8.8527E-03	-6.0351E-01	4.6049E-02	5.0467E-03
1.0623E-02	-6.2551E-01	3.6971E-02	4.2053E-03
1.3456E-02	-6.6504E-01	3.3944E-02	6.1936E-03
1.6997E-02	-6.6581E-01	2.8437E-02	4.8441E-03
2.1246E-02	-6.9689E-01	2.5778E-02	5.8205E-03
2.6912E-02	-6.7804E-01	2.4344E-02	6.6677E-03
3.4171E-02	-6.5939E-01	2.2428E-02	6.5386E-03
4.3555E-02	-6.3674E-01	1.9281E-02	4.4085E-03
5.5241E-02	-5.6637E-01	2.0553E-02	3.4072E-03
7.0290E-02	-4.8448E-01	2.0161E-02	3.3073E-03
8.9943E-02	-3.2112E-01	1.4407E-02	-1.5173E-03
1.1438E-01	-2.6111E-01	1.0608E-02	2.8387E-04
1.4554E-01	-2.2637E-01	5.2006E-03	-4.1925E-04
1.8520E-01	-2.1081E-01	2.8902E-03	4.1919E-04
2.3619E-01	-2.2617E-01	1.6522E-03	-5.0638E-05
3.0347E-01	-2.2469E-01	1.1916E-03	3.6843E-04
3.8527E-01	-2.2791E-01	7.0486E-04	2.4761E-04
4.9186E-01	-2.1560E-01	2.0650E-04	1.2627E-04
6.2712E-01	-2.2532E-01	1.2609E-04	
8.1728E-01	-2.4241E-01	1.8585E-05	7.3151E-06
1.0212E+00	-2.5061E-01		
1.3038E+00	-2.4887E-01		
1.6647E+00	-2.4008E-01		

Table F.3-14 Velocity measurements made at S/T = 0.35 with the UW system of the laser anemometer, plane 4

File E267770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.2
 density (kilograms per meter cubed) = 1.126872
 viscosity (meters squared per second) = 1.617789E-05
 Atmospheric pressure (Pascals) = 95515
 Velocity of undisturbed free stream (Uref, in m/s) = 27.52282
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094747E-03
 Estimated momentum thickness Reynolds number = 6966.237
 Location of traverse; X/T = .4187 Z/T = -.7596 (Plane 4 , S/T = 0.30)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	-3.6967E-01		
2.8329E-03	-5.0803E-01		
3.5411E-03	-5.7232E-01		
4.9575E-03	-6.4684E-01	3.5584E-02	-4.5256E-03
6.3739E-03	-6.9757E-01	1.1366E-02	-6.0283E-03
7.7904E-03	-7.2255E-01	2.7438E-02	-3.3535E-03
9.5609E-03	-7.3656E-01	2.5351E-02	-2.0370E-03
1.2394E-02	-7.5594E-01	1.8956E-02	1.0111E-03
1.6289E-02	-7.4287E-01	1.4713E-02	4.7212E-04
2.0184E-02	-7.2746E-01	1.2851E-02	1.8034E-03
2.6027E-02	-6.6353E-01	1.1658E-02	3.0853E-03
3.2932E-02	-6.4130E-01	1.1359E-02	3.0115E-03
4.2493E-02	-5.9230E-01	1.1759E-02	3.1125E-03
5.4178E-02	-5.2775E-01	1.3951E-02	4.5707E-03
6.9051E-02	-4.3107E-01	1.1805E-02	2.7053E-03
8.8173E-02	-3.2629E-01	1.1789E-02	1.8755E-03
1.1367E-01	-2.6143E-01	7.1114E-03	6.1597E-04
1.4554E-01	-2.4120E-01	3.9738E-03	5.2142E-04
1.8502E-01	-2.2104E-01	2.5242E-03	1.8525E-04
2.3504E-01	-2.2413E-01		
3.0028E-01	-2.4539E-01	1.0942E-03	4.1647E-04
3.8456E-01	-2.4393E-01	5.7070E-04	1.9657E-04
4.8973E-01	-2.5395E-01	3.4045E-04	1.4521E-04
6.2712E-01	-2.4208E-01	2.9348E-04	
7.9887E-01	-2.5676E-01	1.4621E-04	
1.0202E+00	-2.4765E-01		
1.3028E+00	-2.4824E-01	7.3535E-05	
1.6636E+00	-2.4711E-01	7.5343E-04	

Table F.3-15 Velocity measurements made at S/T = 0.30 with the UW system of the laser anemometer, plane 4

File E268770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22
 density (kilograms per meter cubed) = 1.116538
 viscosity (meters squared per second) = 1.631904E-05
 Atmospheric pressure (Pascals) = 94575
 Velocity of undisturbed free stream (Uref, in m/s) = 27.593
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092662E-03
 Estimated momentum thickness Reynolds number = 6920.068
 Location of traverse; X/T = .4279 Z/T = -.7105 (Plane 4, S/T = 0.25)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.3017E-03	-3.3490E-01		
2.8329E-03	-4.5856E-01		
3.5411E-03	-5.3833E-01		
4.9575E-03	-6.8273E-01		
7.4363E-03	-7.5701E-01		
9.5609E-03	-7.6155E-01	1.6121E-02	1.7481E-03
1.2748E-02	-7.5294E-01	1.3875E-02	3.0502E-03
1.5935E-02	-7.3484E-01	1.3232E-02	2.9264E-03
2.0184E-02	-7.1114E-01	1.2671E-02	2.6118E-03
2.5850E-02	-6.5877E-01	9.8911E-03	1.9664E-03
3.2932E-02	-6.3244E-01	1.0235E-02	2.4710E-03
4.2493E-02	-5.4966E-01	8.1973E-03	1.2743E-03
5.4178E-02	-5.0417E-01	1.1477E-02	2.6250E-03
6.9051E-02	-4.2750E-01	8.3945E-03	1.5871E-03
8.8527E-02	-3.5440E-01	8.3140E-03	1.5336E-03
1.1296E-01	-3.1672E-01	5.4836E-03	4.1702E-04
1.4448E-01	-2.8143E-01	4.2772E-03	6.0305E-04
1.8414E-01	-2.6451E-01	3.1118E-03	4.3155E-04
2.3513E-01	-2.9965E-01	2.4832E-03	4.1411E-04
3.0028E-01	-2.5743E-01	1.9719E-03	4.2425E-04
3.8350E-01	-2.5635E-01	6.3673E-04	2.1413E-04
4.8973E-01	-2.6424E-01	1.5169E-04	8.5776E-05
6.2571E-01	-2.6910E-01		
7.9887E-01	-2.8565E-01		
1.0212E+00	-2.8484E-01		
1.3028E+00	-2.8423E-01		
1.6636E+00	-2.8783E-01		

Table F.3-16 Velocity measurements made at S/T = 0.25 with the UW system of the laser anemometer, plane 4

File E269770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.1
 density (kilograms per meter cubed) = 1.118652
 viscosity (meters squared per second) = 1.62498E-05
 Atmospheric pressure (Pascals) = 94465
 Velocity of undisturbed free stream (Uref, in m/s) = 27.535
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094385E-03
 Estimated momentum thickness Reynolds number = 6937.863
 Location of traverse; X/T = .4371 Z/T = -.6613 (Plane 4 , S/T = 0.20)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-3.8117E-01		
2.4788E-03	-5.6998E-01		
3.5411E-03	-6.6242E-01		
5.4887E-03	-7.3247E-01	1.4232E-02	3.1793E-03
7.4363E-03	-7.5921E-01	1.4464E-02	1.6509E-03
1.0977E-02	-7.2413E-01	9.8532E-03	1.2309E-03
1.3810E-02	-7.0562E-01	8.8095E-03	1.7967E-03
1.7351E-02	-6.6626E-01	8.5855E-03	2.4200E-03
2.3725E-02	-6.2495E-01	6.8369E-03	1.2158E-03
3.0807E-02	-5.8453E-01	6.0393E-03	9.1647E-04
4.0722E-02	-5.4481E-01	6.3172E-03	1.4338E-03
5.2054E-02	-4.9792E-01	5.3523E-03	6.1301E-04
6.7103E-02	-4.5770E-01	4.9604E-03	8.0279E-04
8.6048E-02	-4.0298E-01	4.7547E-03	9.0582E-04
1.1119E-01	-3.5988E-01	4.2087E-03	7.5291E-04
1.4200E-01	-3.2981E-01	3.5068E-03	4.6977E-04
1.8201E-01	-3.1399E-01	3.3612E-03	8.1242E-04
2.3300E-01	-2.8864E-01	1.3558E-03	-1.2051E-04
2.9851E-01	-2.8727E-01	8.5583E-04	2.6902E-04
3.8208E-01	-2.8457E-01	3.9984E-04	1.6732E-04
4.8761E-01	-2.8865E-01		
6.2358E-01	-3.0952E-01	3.5091E-05	
7.9674E-01	-3.0751E-01		
1.0195E+00	-3.0784E-01	4.5333E-05	
1.3006E+00	-3.2179E-01		
1.6615E+00	-3.0532E-01		

Table F.3-17 Velocity measurements made at S/T = 0.20 with the UW system of the laser anemometer, plane 4

File E270770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.5
 density (kilograms per meter cubed) = 1.119025
 viscosity (meters squared per second) = 1.626145E-05
 Atmospheric pressure (Pascals) = 94625
 Velocity of undisturbed free stream (Uref, in m/s) = 27.55922
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093665E-03
 Estimated momentum thickness Reynolds number = 6937.771
 Location of traverse; X/T = .4463 Z/T = -.6122 (Plane 4 , S/T = 0.15)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-2.6117E-01		
1.7705E-03	-4.1535E-01		
2.4788E-03	-3.9538E-01		
3.5411E-03	-5.5659E-01		
4.9575E-03	-6.6311E-01	1.3109E-02	6.9887E-03
7.0822E-03	-7.4023E-01	1.2870E-02	4.8692E-03
9.9150E-03	-7.6472E-01	1.4387E-02	3.8052E-03
1.3456E-02	-7.5075E-01	1.4783E-02	4.6152E-03
1.7705E-02	-6.5763E-01	7.5997E-03	9.5265E-04
2.3371E-02	-5.8233E-01	5.8846E-03	1.1710E-03
3.0453E-02	-5.5860E-01	5.3118E-03	9.3839E-04
4.0014E-02	-5.1612E-01	4.6529E-03	5.9142E-04
5.1877E-02	-5.0596E-01	4.1747E-03	4.0348E-04
6.6572E-02	-4.6285E-01	3.5759E-03	4.0214E-04
8.5871E-02	-4.1372E-01	3.5917E-03	5.2247E-04
1.1048E-01	-3.8099E-01	3.3033E-03	4.5703E-04
1.4271E-01	-3.5387E-01	2.7546E-03	4.3704E-04
1.8166E-01	-3.3229E-01	2.4851E-03	5.3596E-04
2.3265E-01	-3.2310E-01	2.2280E-03	7.1894E-04
2.9798E-01	-3.1930E-01	1.9012E-03	5.5483E-04
3.8120E-01	-3.2022E-01	5.1997E-04	-1.3104E-04
4.8725E-01	-3.2704E-01	1.8075E-04	6.5194E-05
6.2323E-01	-3.4729E-01	1.6028E-04	
7.9639E-01	-3.3776E-01		
1.0177E+00	-3.3481E-01		
1.3003E+00	-3.2896E-01		
1.6611E+00	-3.2538E-01		

Table F.3-18 Velocity measurements made at S/T = 0.15 with the UW system of the laser anemometer, plane 4

File E271770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.5
 density (kilograms per meter cubed) = 1.098258
 viscosity (meters squared per second) = 1.669904E-05
 Atmospheric pressure (Pascals) = 93815
 Velocity of undisturbed free stream (Uref, in m/s) = 27.51553
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094964E-03
 Estimated momentum thickness Reynolds number = 6747.4
 Location of traverse; X/T = .4554 Z/T = -.563 (Plane 4 , S/T = 0.10)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-2.3327E-01		
2.4788E-03	-3.8602E-01		
4.2493E-03	-4.6753E-01		
6.0198E-03	-6.1754E-01	1.5540E-02	
8.8527E-03	-6.6900E-01	1.0436E-02	3.2671E-03
1.2394E-02	-6.1629E-01	6.4222E-03	1.7421E-03
1.6643E-02	-5.9523E-01	5.5799E-03	1.6023E-03
2.2663E-02	-5.5861E-01	4.6065E-03	1.1542E-03
3.0099E-02	-5.2020E-01	4.1206E-03	7.1468E-04
4.7450E-02	-4.7084E-01	3.4231E-03	4.3808E-04
5.0637E-02	-4.6630E-01	3.5498E-03	4.8988E-04
6.5510E-02	-3.8248E-01	2.8274E-03	6.4421E-05
8.4632E-02	-4.1344E-01	3.1049E-03	3.4375E-04
1.0942E-01	-3.9002E-01	2.7665E-03	3.1523E-04
1.8201E-01	-3.5804E-01	2.7847E-03	
2.3159E-01	-3.4067E-01	1.6086E-03	2.7750E-04
2.9674E-01	-3.3761E-01	5.8248E-04	1.5635E-04
3.7996E-01	-3.4397E-01	3.5067E-04	1.1727E-04
4.8619E-01	-3.5896E-01	1.6532E-05	3.4835E-06
6.2217E-01	-3.4724E-01		
7.9533E-01	-3.5999E-01		
8.9837E-01	-3.5948E-01		
1.1809E+00	-3.5197E-01		
1.5418E+00	-3.4753E-01		

Table F.3-19 Velocity measurements made at S/T = 0.10 with the UW system of the laser anemometer, plane 4

File E272770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.6
 density (kilograms per meter cubed) = 1.11109
 viscosity (meters squared per second) = 1.642482E-05
 Atmospheric pressure (Pascals) = 94305
 Velocity of undisturbed free stream (Uref, in m/s) = 27.52493
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094684E-03
 Estimated momentum thickness Reynolds number = 6861.927
 Location of traverse; X/T = .4646 Z/T = -.5139 (Plane 4 , S/T = 0.05)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.4788E-03	-3.8552E-01		
3.5411E-03	-4.4465E-01		
4.6034E-03	-5.3349E-01		
6.0198E-03	-5.6914E-01	6.0497E-03	3.6221E-03
7.7904E-03	-5.5076E-01	5.5573E-03	1.9811E-03
1.0092E-02	-5.3920E-01	5.5709E-03	1.1752E-03
1.2748E-02	-5.2995E-01	4.6293E-03	1.0001E-03
1.6643E-02	-5.0032E-01	4.4161E-03	9.9334E-04
2.0538E-02	-4.8102E-01	3.8728E-03	6.0230E-04
2.6204E-02	-4.9562E-01	3.7071E-03	7.6732E-04
3.3640E-02	-4.8986E-01	3.4629E-03	6.4599E-04
4.3201E-02	-4.7521E-01	3.1278E-03	4.6922E-04
5.4533E-02	-4.6137E-01	2.4992E-03	2.7491E-04
6.9405E-02	-4.5528E-01	2.7627E-03	5.0134E-04
8.9235E-02	-4.3861E-01	2.6178E-03	3.2654E-04
1.1367E-01	-4.2174E-01	2.4812E-03	4.0565E-04
1.4572E-01	-4.1038E-01	2.3469E-03	2.5882E-04
1.8449E-01	-3.8098E-01	1.7100E-03	4.0962E-04
2.3548E-01	-3.7157E-01	7.3609E-04	1.2994E-04
3.0205E-01	-3.7362E-01	4.2844E-04	7.8443E-05
3.8492E-01	-3.7543E-01	6.1435E-05	3.1178E-05
4.9009E-01	-3.8516E-01		
6.2606E-01	-3.8953E-01		
7.9922E-01	-3.9577E-01		
1.0205E+00	-3.8628E-01		
1.3031E+00	-3.8128E-01		
1.6640E+00	-3.6430E-01		

Table F.3-20 Velocity measurements made at S/T = 0.05 with the UW system of the laser anemometer, plane 4

File E319770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.5

density (kilograms per meter cubed) = 1.110587

viscosity (meters squared per second) = 1.65564E-05

Atmospheric pressure (Pascals) = 95187

Velocity of undisturbed free stream (Uref, in m/s) = 27.57027

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093337E-03

Estimated momentum thickness Reynolds number = 6816.36

Location of traverse; X/T = .382 Z/T = -.9562 (Plane 4, S/T = 0.50)

Y/T	vw/Uref ²
9.5609E-03	2.0275E-03
1.2748E-02	1.2034E-03
1.6289E-02	1.4115E-03
1.9830E-02	2.2001E-04
2.5850E-02	3.8903E-04
3.3640E-02	-1.0215E-03
4.2493E-02	-2.8622E-03
5.4178E-02	-3.4902E-03
6.9051E-02	-3.3753E-03
8.8881E-02	-3.0537E-03
1.1296E-01	-1.8929E-03
1.4412E-01	-4.5499E-04
1.8414E-01	-3.1851E-04
2.3513E-01	-1.6988E-04
3.0099E-01	-2.1700E-04
3.8350E-01	-1.9960E-04

Table F.3-21 Velocity measurements made at S/T = 0.50 with the VW system of the laser anemometer, plane 4

File E318770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.9

density (kilograms per meter cubed) = 1.10698

viscosity (meters squared per second) = 1.662749E-05

Atmospheric pressure (Pascals) = 95005

Velocity of undisturbed free stream (Uref, in m/s) = 27.59184

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092697E-03

Estimated momentum thickness Reynolds number = 6791.464

Location of traverse; X/T = .4096 Z/T = -.8088 (Plane 4, S/T = 0.35)

Y/T	vw/Uref2
4.9575E-03	-7.8103E-04
6.7280E-03	-1.9887E-03
8.8527E-03	-3.0675E-03
1.1686E-02	-2.6861E-03
1.5227E-02	-3.5201E-03
1.9476E-02	-2.8580E-03
2.5142E-02	-3.0392E-03
3.3640E-02	-3.5412E-03
4.1785E-02	-3.6338E-03
5.3470E-02	-4.5055E-03
6.8343E-02	-5.6075E-03
8.7465E-02	-6.9234E-03
1.1225E-01	-3.0990E-03
1.4341E-01	-1.9342E-03
1.8343E-01	-4.1968E-04
2.3442E-01	1.3963E-04
2.9958E-01	-1.3466E-04
3.8314E-01	-4.8386E-05

Table F.3-22 Velocity measurements made at S/T = 0.35 with the VW system of the laser anemometer, plane 4

File E326770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 26.8
density (kilograms per meter cubed) = 1.09779
viscosity (meters squared per second) = 1.68055E-05
Atmospheric pressure (Pascals) = 94500
Velocity of undisturbed free stream (Uref, in m/s) = 27.64453
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091135E-03
Estimated momentum thickness Reynolds number = 6729.791
Location of traverse; X/T = .4187 Z/T = -.7596 (Plane 4 , S/T = 0.30)

Y/T	vw/Uref2
4.9575E-03	5.6981E-04
7.2592E-03	-6.8597E-04
8.8527E-03	-1.2366E-03
1.1686E-02	-2.5733E-03
1.5227E-02	-1.8118E-03
1.9476E-02	-1.7186E-03
2.5142E-02	-3.5930E-03
3.2224E-02	-3.5372E-03
4.1785E-02	-5.0072E-03
5.3470E-02	-5.8391E-03
6.8343E-02	-6.8749E-03
8.7465E-02	-4.0274E-03
1.1225E-01	-2.3565E-03
1.4873E-01	-6.8443E-04
1.8343E-01	-3.6202E-04
2.3442E-01	-1.1012E-04
2.9958E-01	-6.2349E-04
3.8279E-01	-2.7288E-04

Table F.3-23 Velocity measurements made at S/T = 0.30 with the VW system of the laser anemometer, plane 4

File E317770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.6

density (kilograms per meter cubed) = 1.114215

viscosity (meters squared per second) = 1.646414E-05

Atmospheric pressure (Pascals) = 95210

Velocity of undisturbed free stream (Uref, in m/s) = 27.59056

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092734E-03

Estimated momentum thickness Reynolds number = 6858.592

Location of traverse; X/T = .4279 Z/T = -.7107 (Plane 4, S/T = 0.25)

Y/T	vw/Uref2
5.3116E-03	-2.8469E-03
6.0198E-03	-3.3684E-03
6.7280E-03	-2.9163E-03
7.7904E-03	-2.4261E-03
9.5609E-03	-1.8312E-03
1.1686E-02	-2.5470E-03
1.4518E-02	-2.8745E-03
1.8059E-02	-3.4144E-03
2.2309E-02	-3.6172E-03
2.7975E-02	-4.5888E-03
3.5057E-02	-4.3769E-03
4.4618E-02	-3.7440E-03
5.6303E-02	-3.6014E-03
7.2946E-02	-3.1939E-03
9.0297E-02	-2.5667E-03
1.1508E-01	-2.0525E-03
1.4625E-01	-6.4079E-04
1.8626E-01	-2.7494E-04
2.3902E-01	-3.3464E-04
3.0276E-01	-2.5841E-04
3.8598E-01	-3.7247E-04

Table F.3-24 Velocity measurements made at S/T = 0.25 with the VW system of the laser anemometer, plane 4

File E325770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 26.1

density (kilograms per meter cubed) = 1.102723

viscosity (meters squared per second) = 1.670026E-05

Atmospheric pressure (Pascals) = 94703

Velocity of undisturbed free stream (Uref, in m/s) = 27.61052

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092143E-03

Estimated momentum thickness Reynolds number = 6765.537

Location of traverse; X/T = .4371 Z/T = -.6613 (Plane 4, S/T = 0.20)

Y/T	vw/Uref2
5.6657E-03	-2.1746E-04
7.4363E-03	-4.4359E-04
9.9150E-03	-2.2559E-04
1.2394E-02	-1.0135E-04
2.0184E-02	-7.1190E-05
2.5850E-02	-1.7379E-04
3.2932E-02	-5.7483E-04
4.2493E-02	-1.3909E-04
5.4178E-02	-3.6990E-04
6.9051E-02	-4.0727E-04
9.0297E-02	-5.8937E-04
1.1296E-01	-3.1840E-04
1.4412E-01	-2.7097E-04
1.8414E-01	-6.6617E-04
2.3548E-01	-4.1860E-04
3.0135E-01	-3.2621E-04
3.8350E-01	-5.8486E-04
4.8973E-01	-3.5445E-04

Table F.3-25 Velocity measurements made at S/T = 0.20 with the VW system of the laser anemometer, plane 4

File E316770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.9

density (kilograms per meter cubed) = 1.116196

viscosity (meters squared per second) = 1.640512E-05

Atmospheric pressure (Pascals) = 95155

Velocity of undisturbed free stream (Uref, in m/s) = 27.55466

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = .0040938

Estimated momentum thickness Reynolds number = 6876.104

Location of traverse; $X/T = .4463$ $Z/T = -.6122$ (Plane 4, $S/T = 0.15$)

Y/T	v_{xy}/U_{ref}^2
9.5609E-03	1.5898E-04
1.2394E-02	-1.7768E-04
1.5935E-02	1.0865E-05
2.0184E-02	-4.7904E-04
2.5850E-02	-1.0645E-03
3.2932E-02	-3.2369E-04
4.2493E-02	-6.5345E-04
5.4178E-02	-2.5141E-04
6.9051E-02	-2.5075E-04
8.8173E-02	-3.7673E-04
1.1579E-01	-4.2791E-04
1.4412E-01	-5.5866E-04
1.8414E-01	-4.8886E-04
2.3513E-01	-4.1776E-04
3.0028E-01	-6.9854E-04
3.8350E-01	-7.1166E-04
4.8973E-01	-3.8350E-04

Table F.3-26 Velocity measurements made at $S/T = 0.15$ with the VW system of the laser anemometer, plane 4

File E324770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.7

density (kilograms per meter cubed) = 1.10469

viscosity (meters squared per second) = 1.865336E-05

Atmospheric pressure (Pascals) = 94745

Velocity of undisturbed free stream (Uref, in m/s) = 27.58639

Estimated momentum thickness at X/T = -2.146, Z/T=0. (m) = 4.092858E-03

Estimated momentum thickness Reynolds number = 6779.845

Location of traverse; X/T = .4554 Z/T = -.563 (Plane 4 , S/T = 0.10)

Y/T	vm/Uref2
7.4363E-03	1.6079E-03
9.5609E-03	2.5180E-04
1.2394E-02	-3.7593E-04
1.5935E-02	-9.4472E-04
2.0184E-02	-7.0898E-04
2.5850E-02	-4.0643E-04
3.2932E-02	1.1364E-04
4.2847E-02	5.0537E-05
5.4178E-02	1.1910E-05
6.9051E-02	-1.8300E-04
8.8527E-02	-1.4036E-04
1.1296E-01	-2.8624E-04
1.4412E-01	-2.1321E-04
1.8449E-01	-3.6836E-04
2.3513E-01	-4.2648E-04
3.0276E-01	-3.5664E-04
3.8704E-01	-8.0230E-04
4.9009E-01	-3.4588E-04

Table F.3-27 Velocity measurements made at S/T = 0.10 with the VW system of the laser anemometer, plane 4

File E315770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.111071

viscosity (meters squared per second) = 1.648506E-05

Atmospheric pressure (Pascals) = 94750

Velocity of undisturbed free stream (Uref, in m/s) = 27.58065

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.093029E-03

Estimated momentum thickness Reynolds number = 6847.92

Location of traverse; $X/T = .4646$ $Z/T = -.5139$ (Plane 4, $S/T = 0.05$)

Y/T	vw/Uref2
5.3116E-03	3.2171E-04
6.3739E-03	-7.6963E-04
8.4986E-03	-1.1189E-03
1.0623E-02	-1.9296E-05
1.3102E-02	2.1524E-04
1.6997E-02	-3.0777E-04
2.0892E-02	-1.4237E-04
2.6558E-02	7.0454E-04
3.3640E-02	9.7637E-04
4.3201E-02	7.1728E-04
5.4887E-02	1.1115E-04
6.9759E-02	-7.7220E-04
8.8881E-02	-3.6366E-04
1.1402E-01	-8.4872E-04
1.4483E-01	-5.5787E-04
1.8484E-01	-2.8331E-04
2.3619E-01	-5.8022E-04
3.0099E-01	-6.0372E-04
3.8704E-01	1.0183E-04
4.9044E-01	3.1985E-04

Table F.3-28 Velocity measurements made at $S/T = 0.05$ with the VW system of the laser anemometer, plane 4

F.4 LDV MEASUREMENTS IN PLANE 5

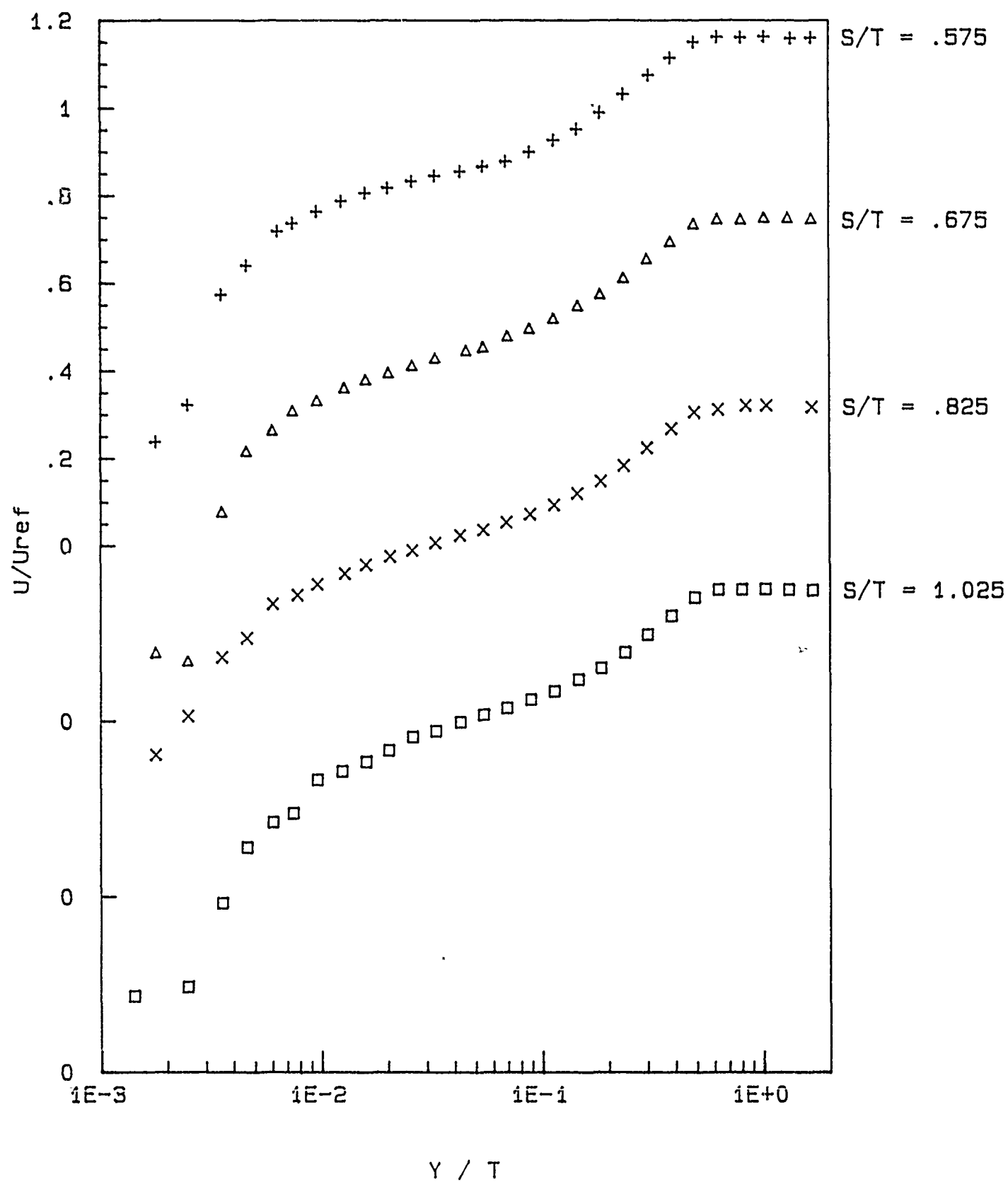


Figure F.4-1(a) Profiles of mean-velocity component U , plane 5.

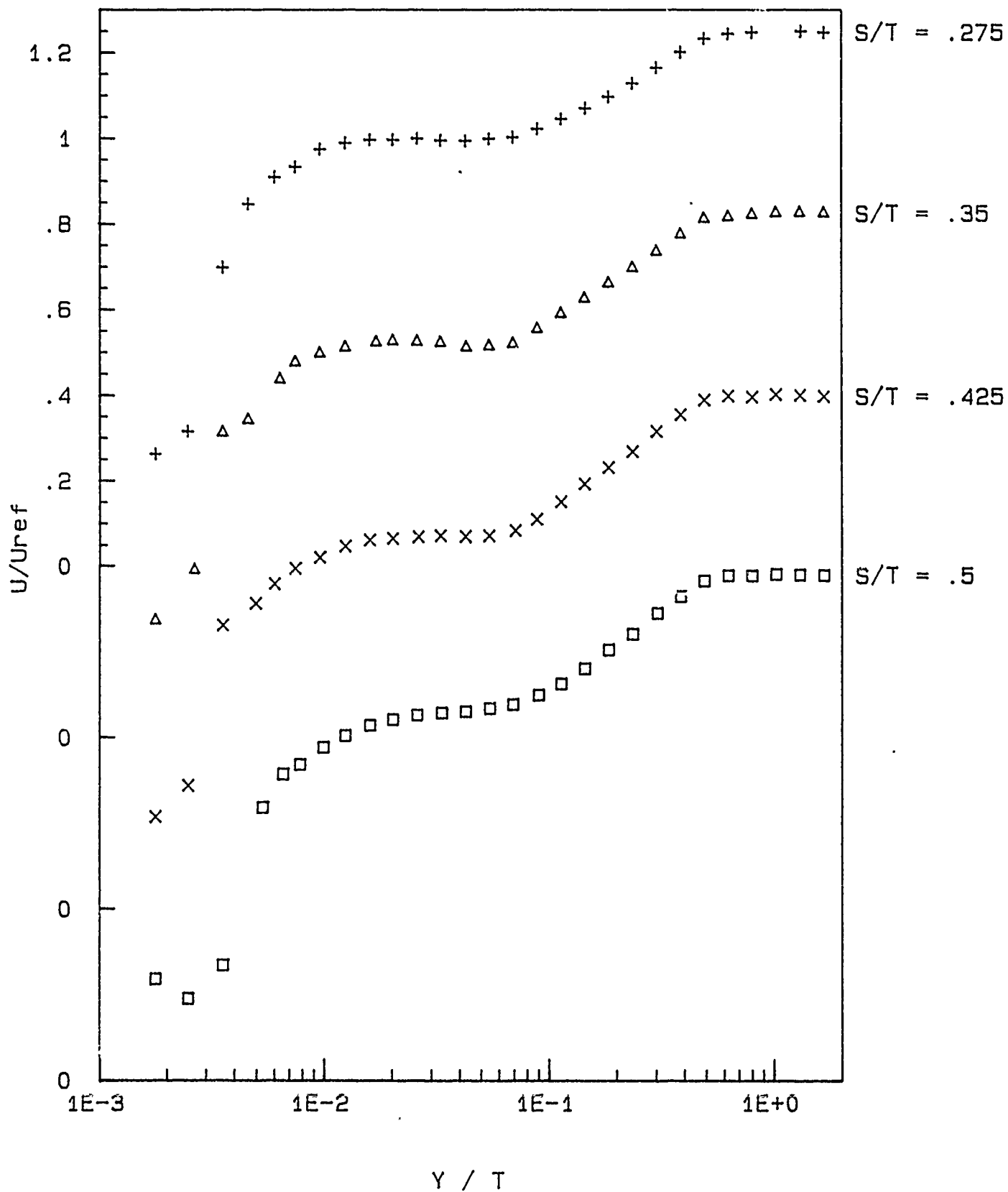


Figure F.4-1(b) Profiles of mean-velocity component U , plane 5.

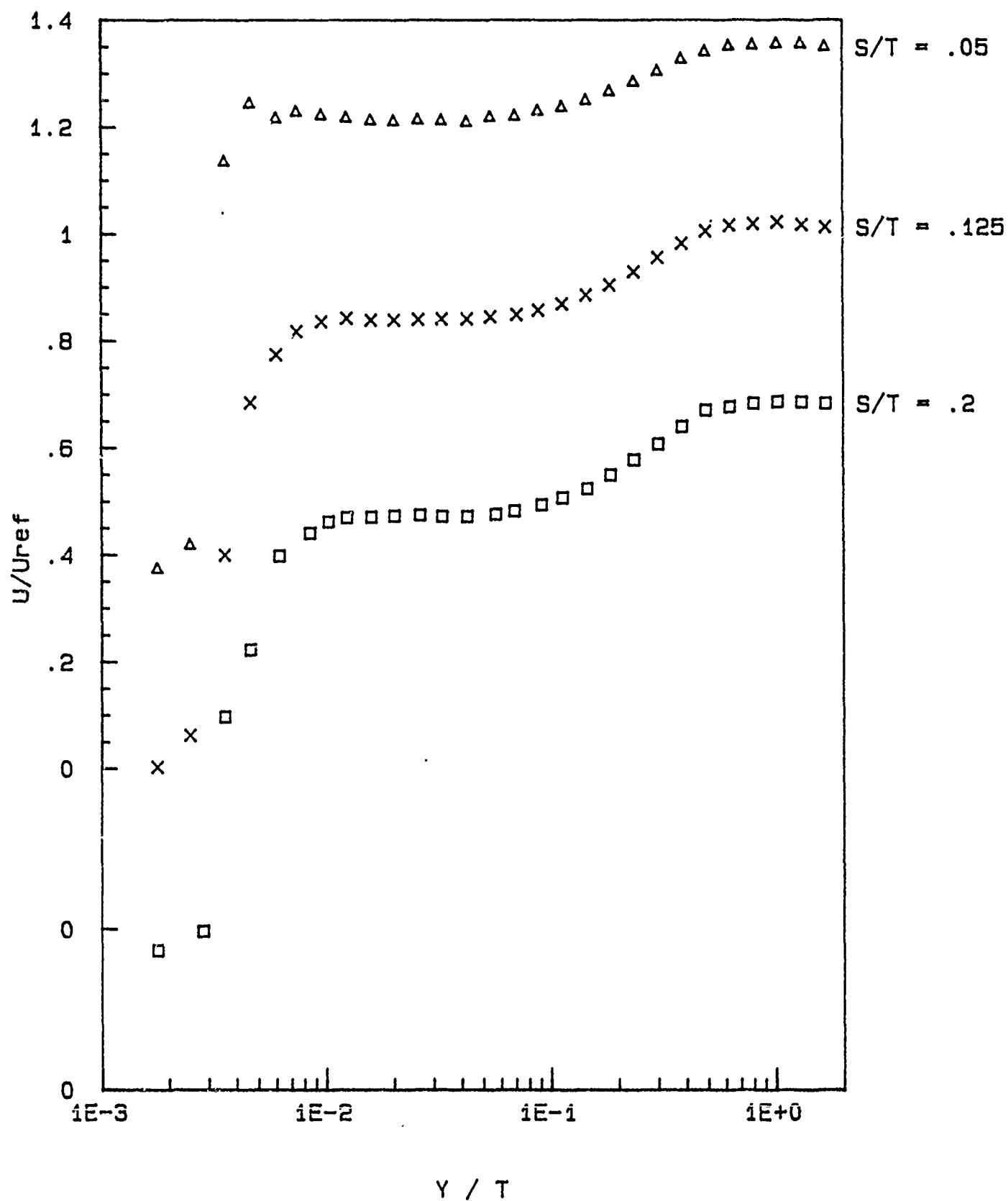


Figure F.4-1(c) Profiles of mean-velocity component U, plane 5.

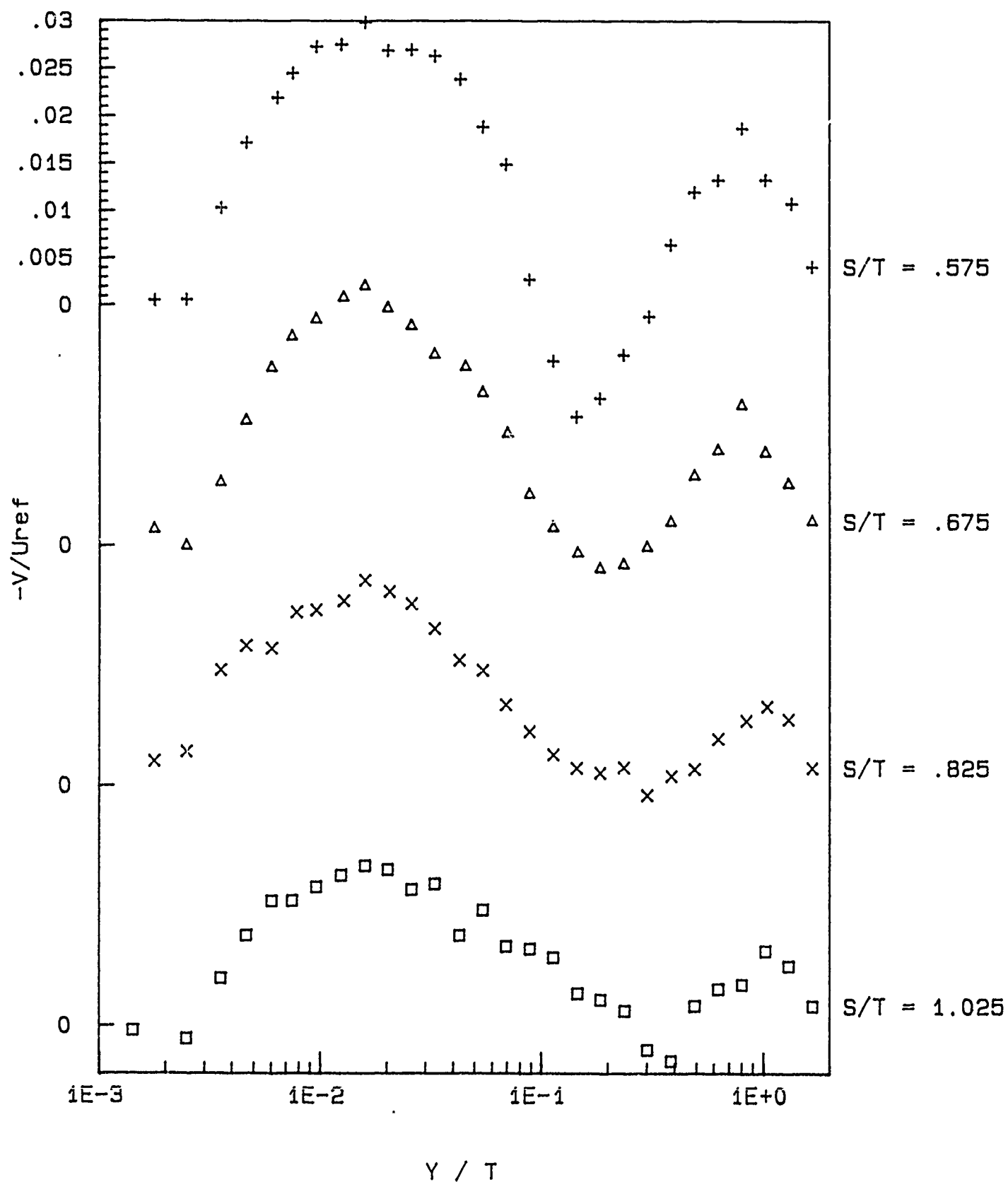


Figure F.4-2(a) Profiles of mean-velocity component V , plane 5.

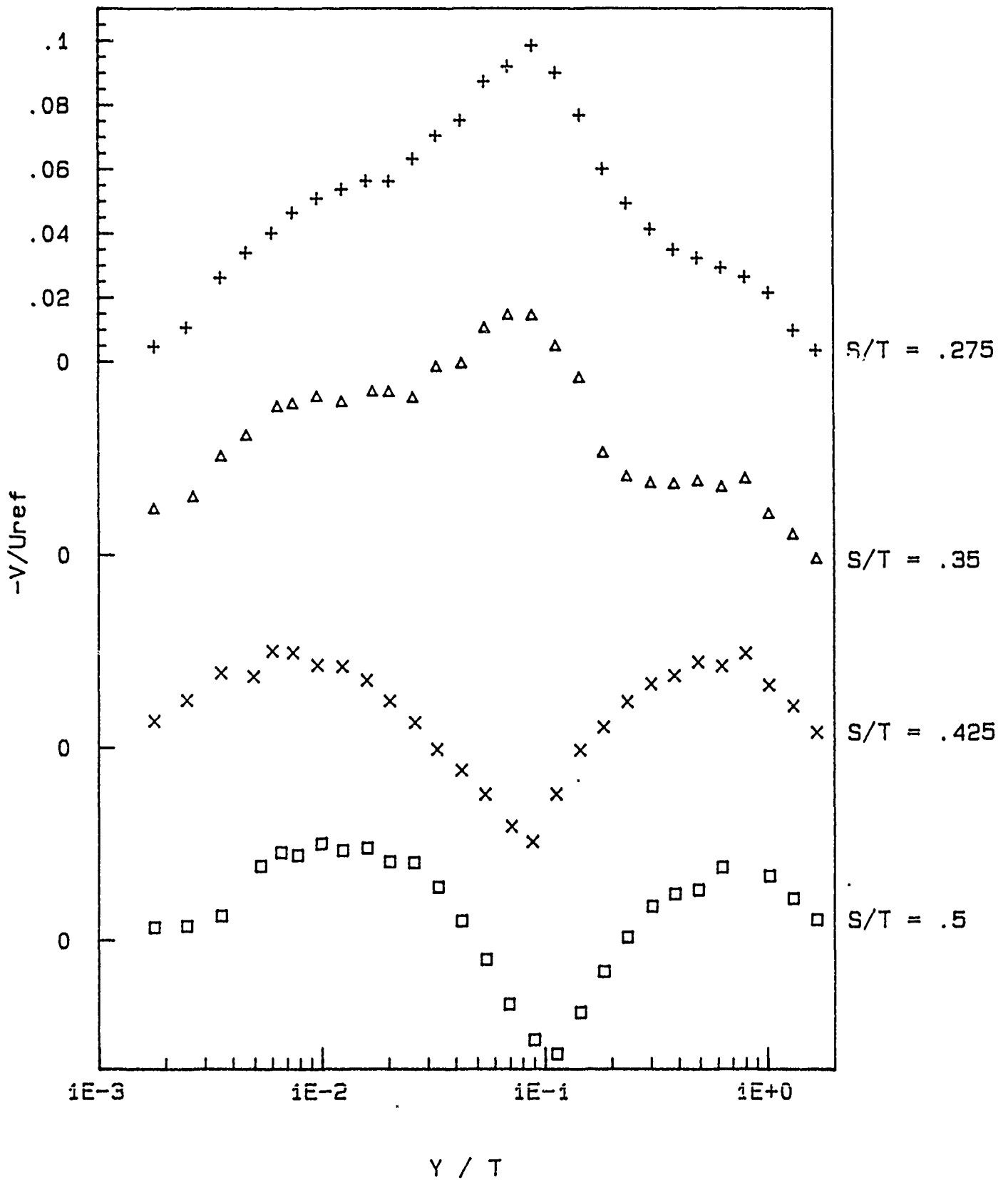


Figure F.4-2(b) Profiles of mean-velocity component V , plane 5.

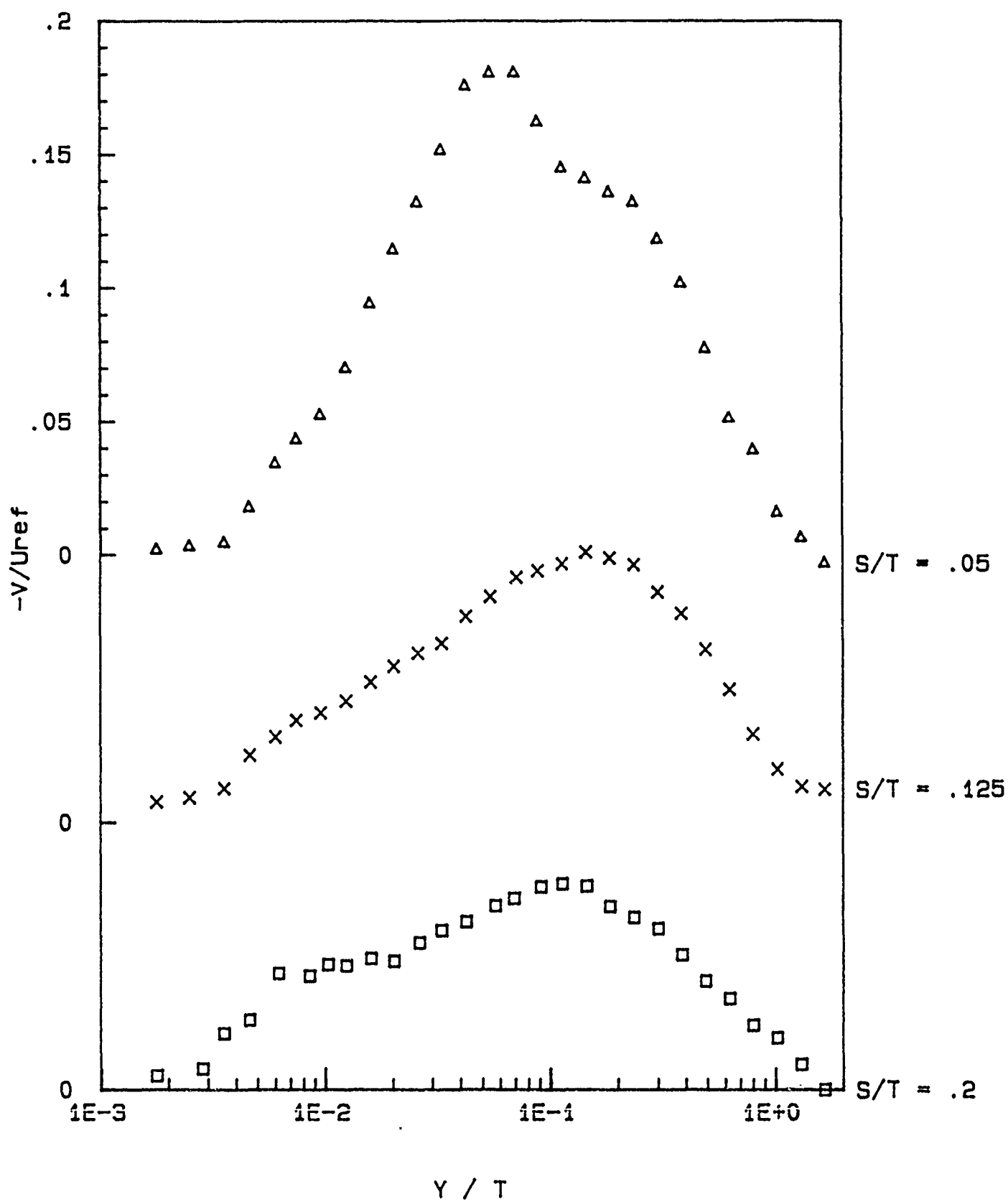


Figure F.4-2(c) Profiles of mean-velocity component V , plane 5.

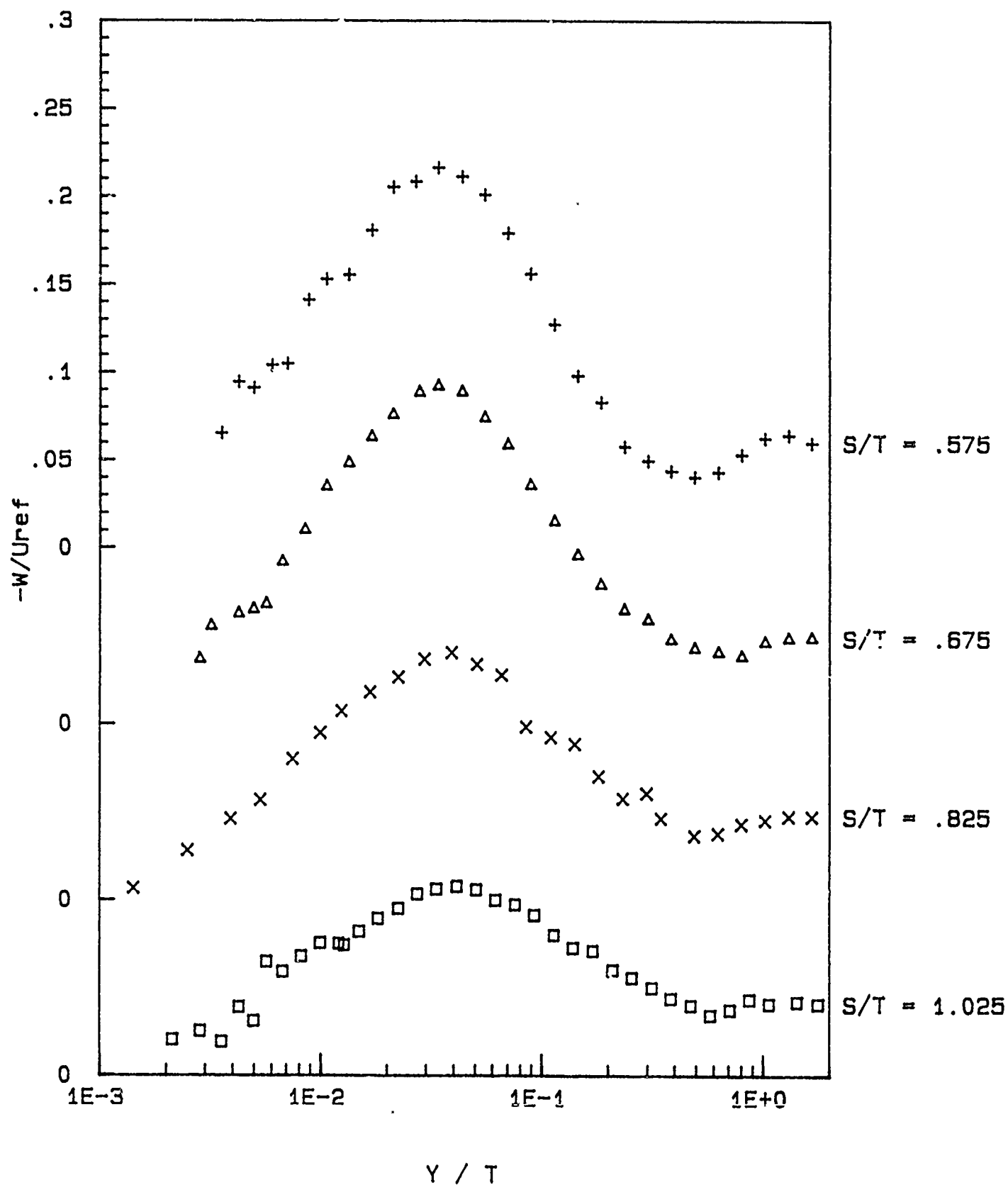


Figure F.4-3(a) Profiles of mean-velocity component W , plane 5.

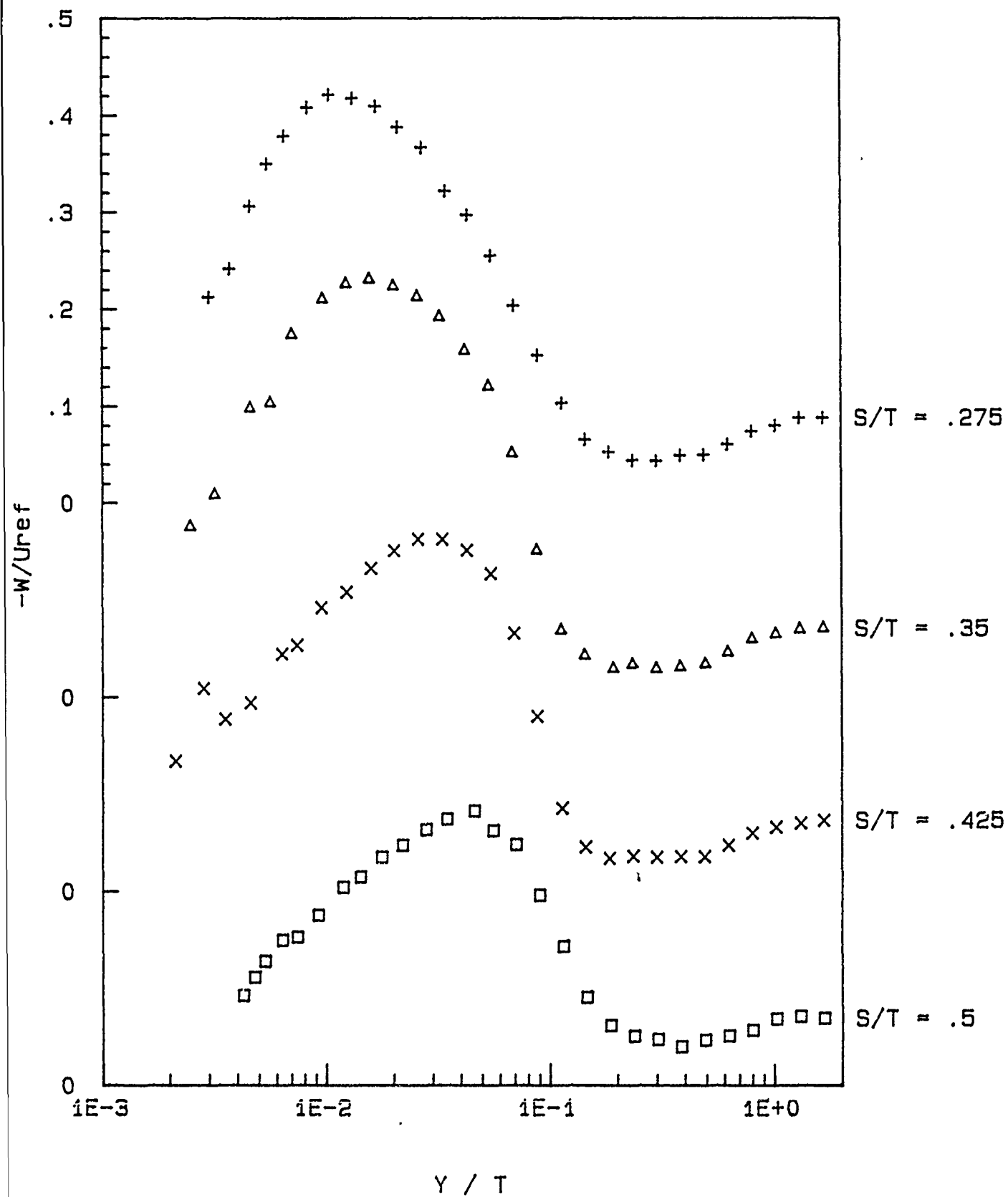


Figure F.4-3(b) Profiles of mean-velocity component W , plane 5.

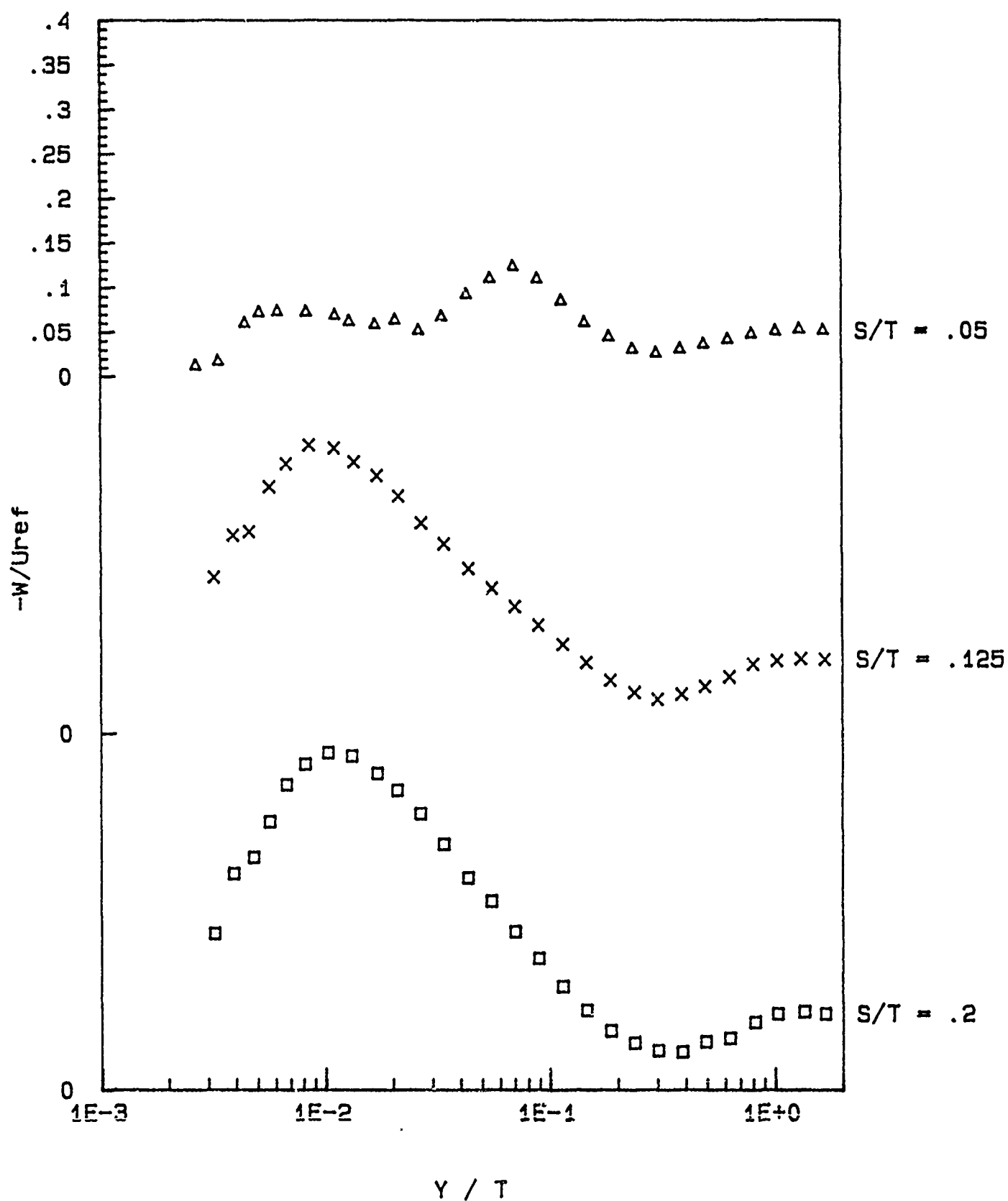


Figure F.4-3(c) Profiles of mean-velocity component W, plane 5.

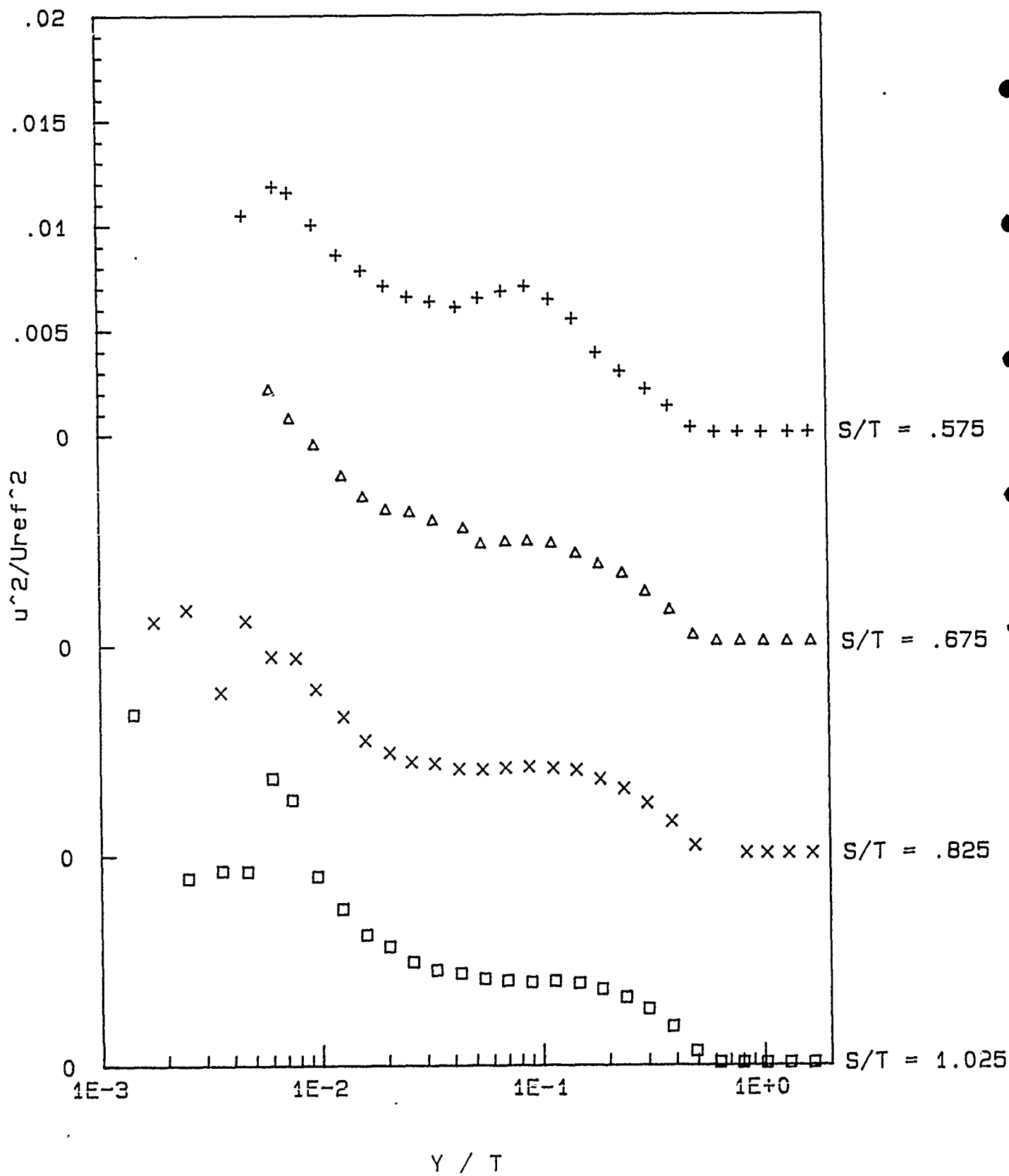


Figure F.4-4(a) Profiles of U-component of turbulence normal stress, plane 5.

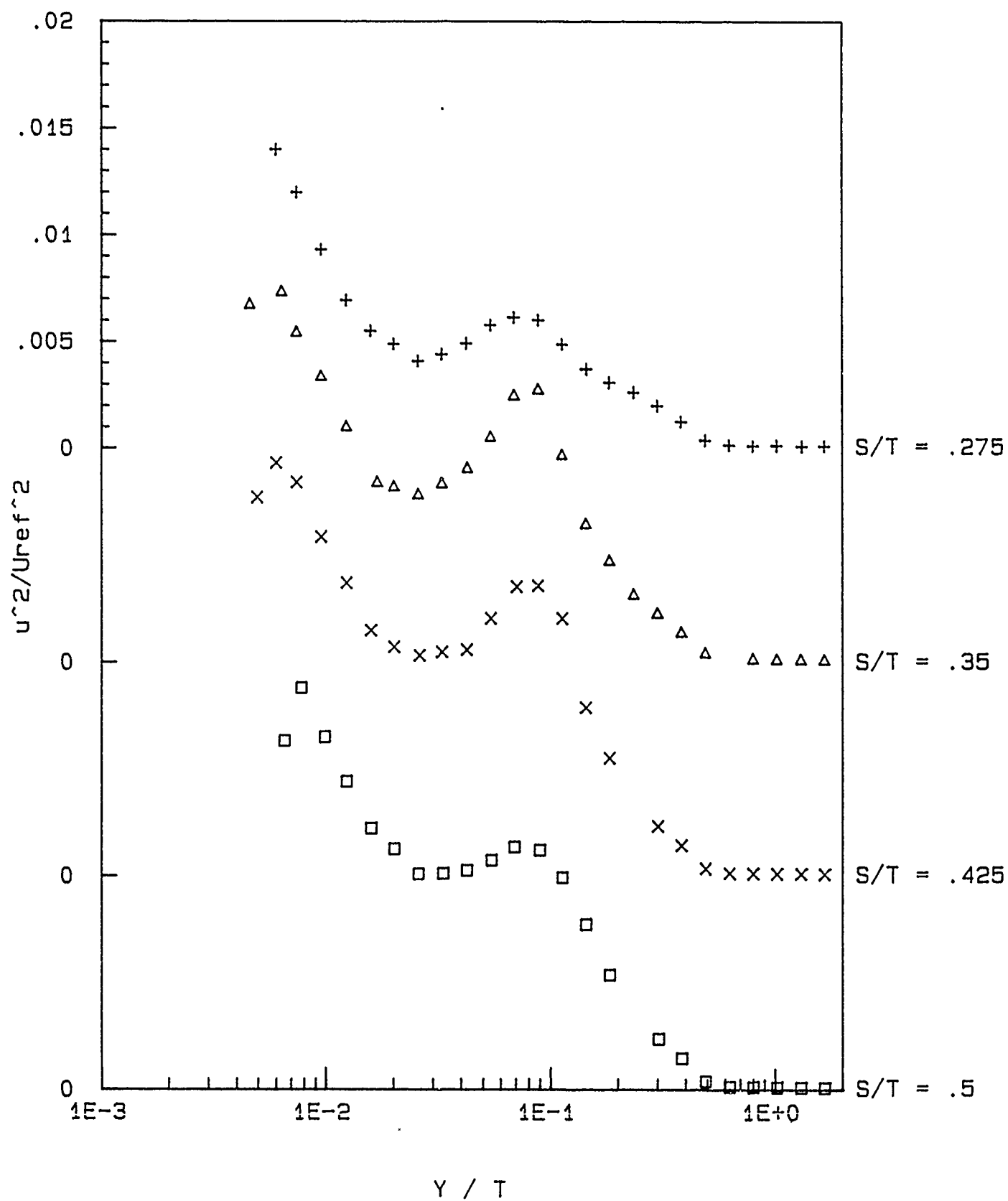


Figure F.4-4(b) Profiles of U-component of turbulence normal stress, plane 5.

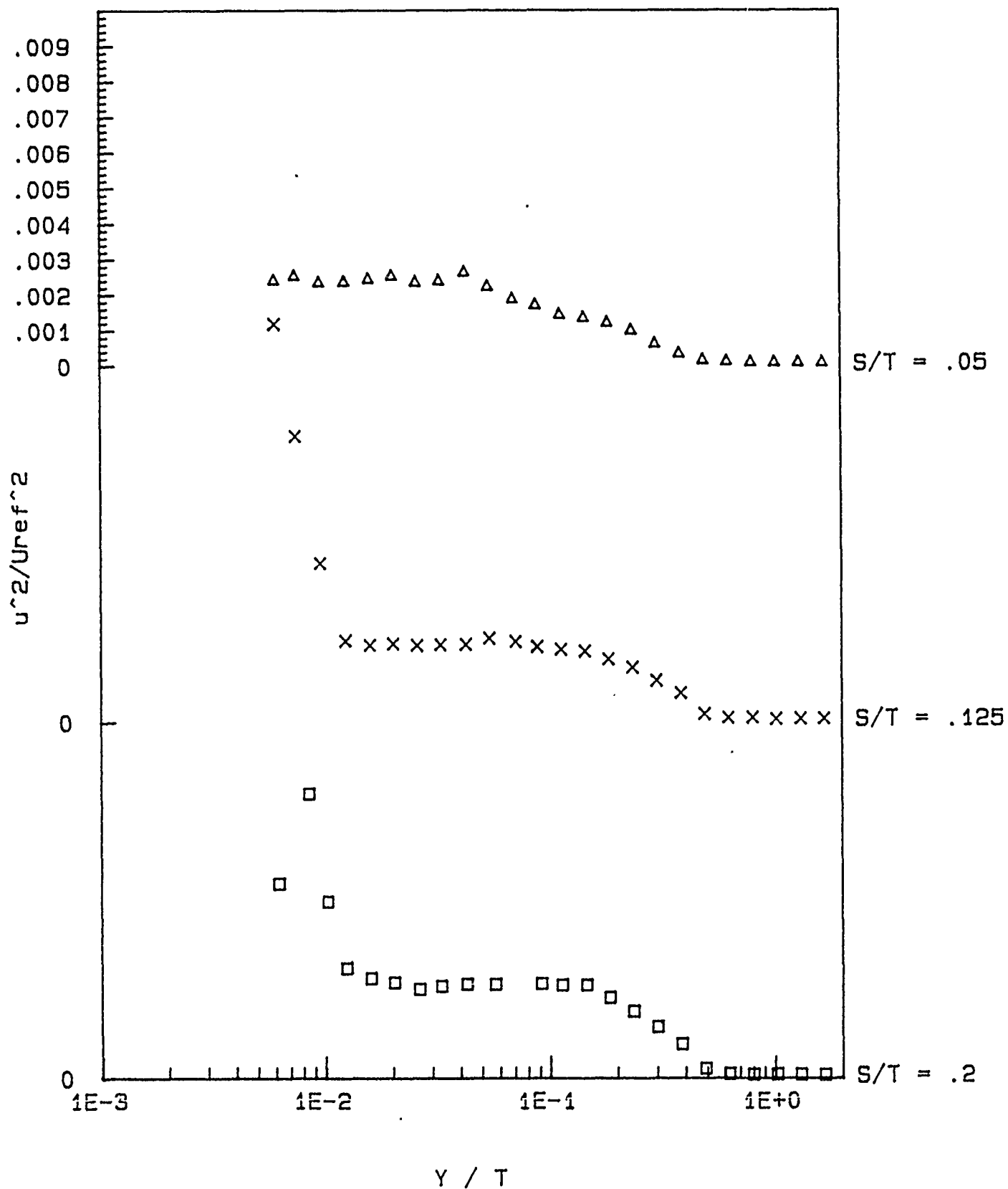


Figure F.4-4(c) Profiles of U-component of turbulence normal stress, plane 5.

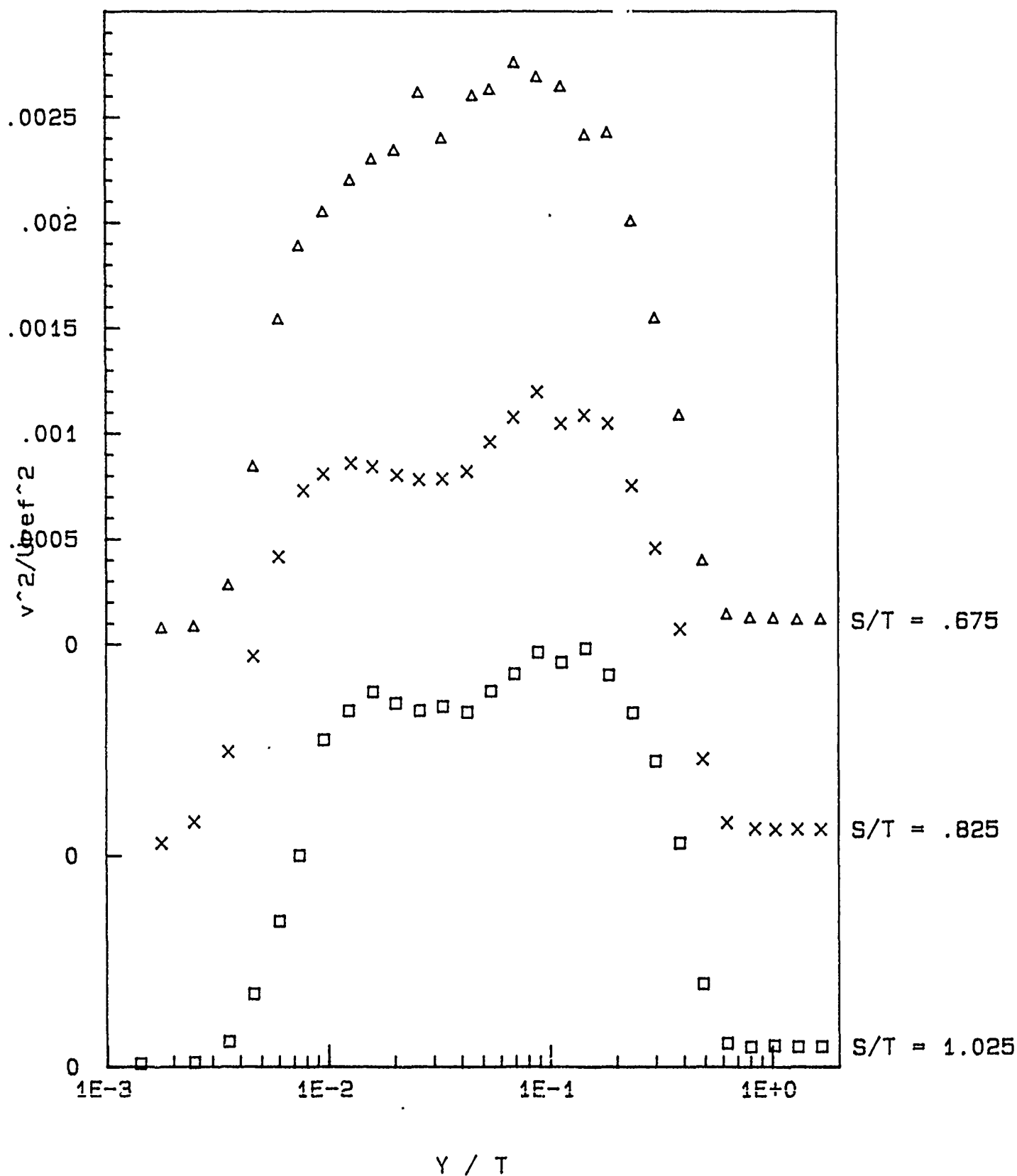


Figure F.4-5(a) Profiles of V-component of turbulence normal stress, plane 5.

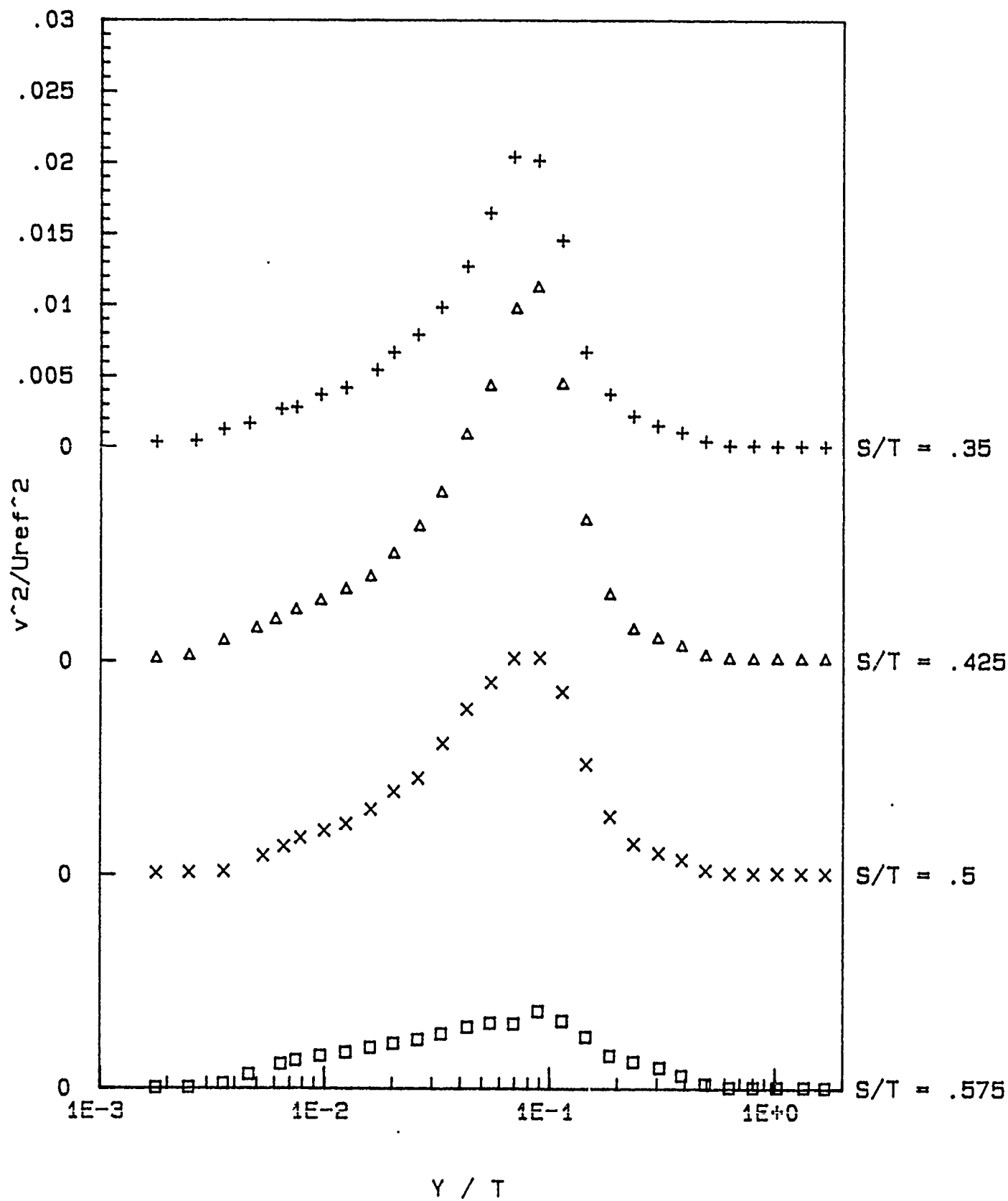


Figure F.4-5(b) Profiles of V-component of turbulence normal stress, plane 5.

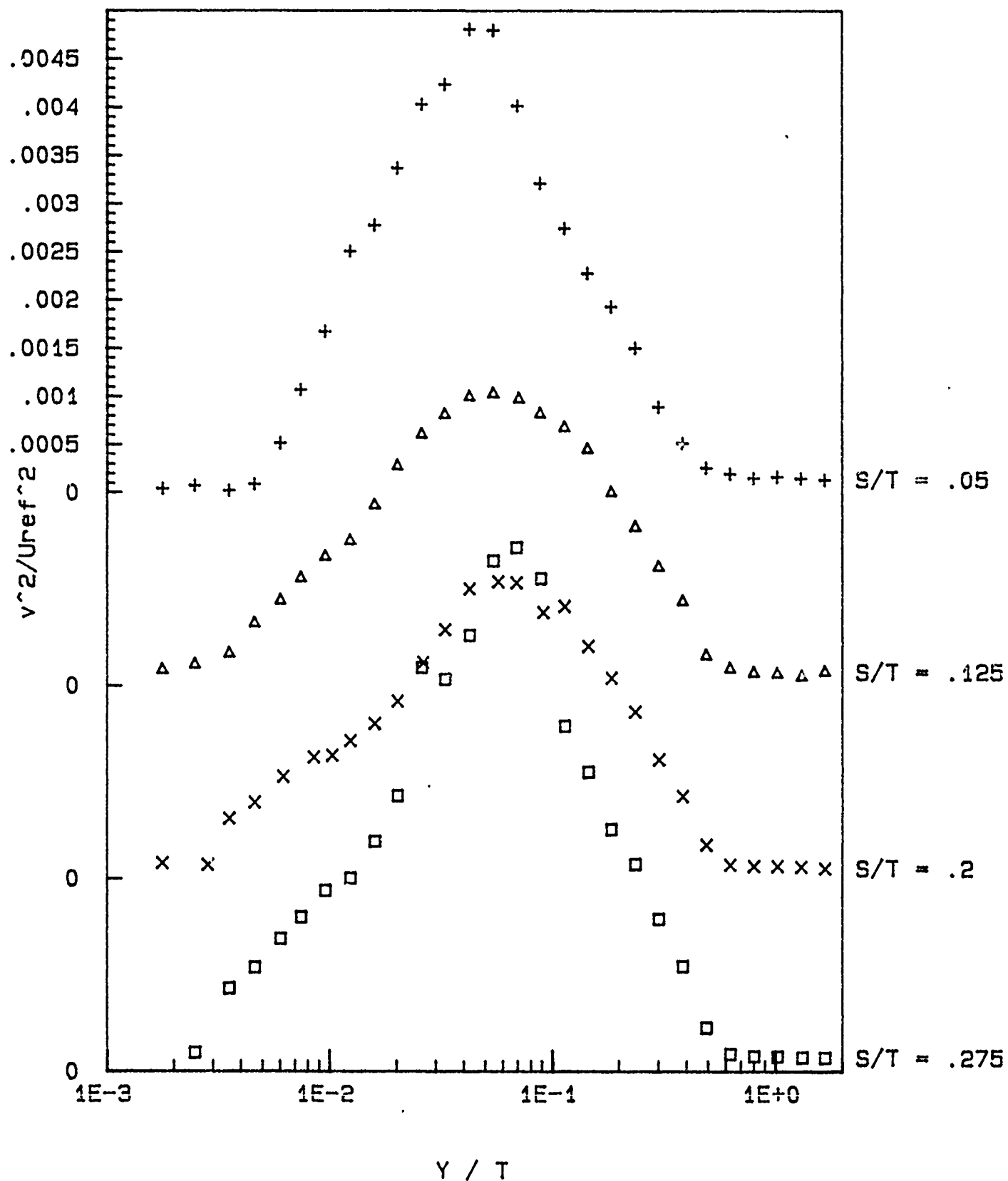


Figure F.4-5(c) Profiles of V-component of turbulence normal stress, plane 5.

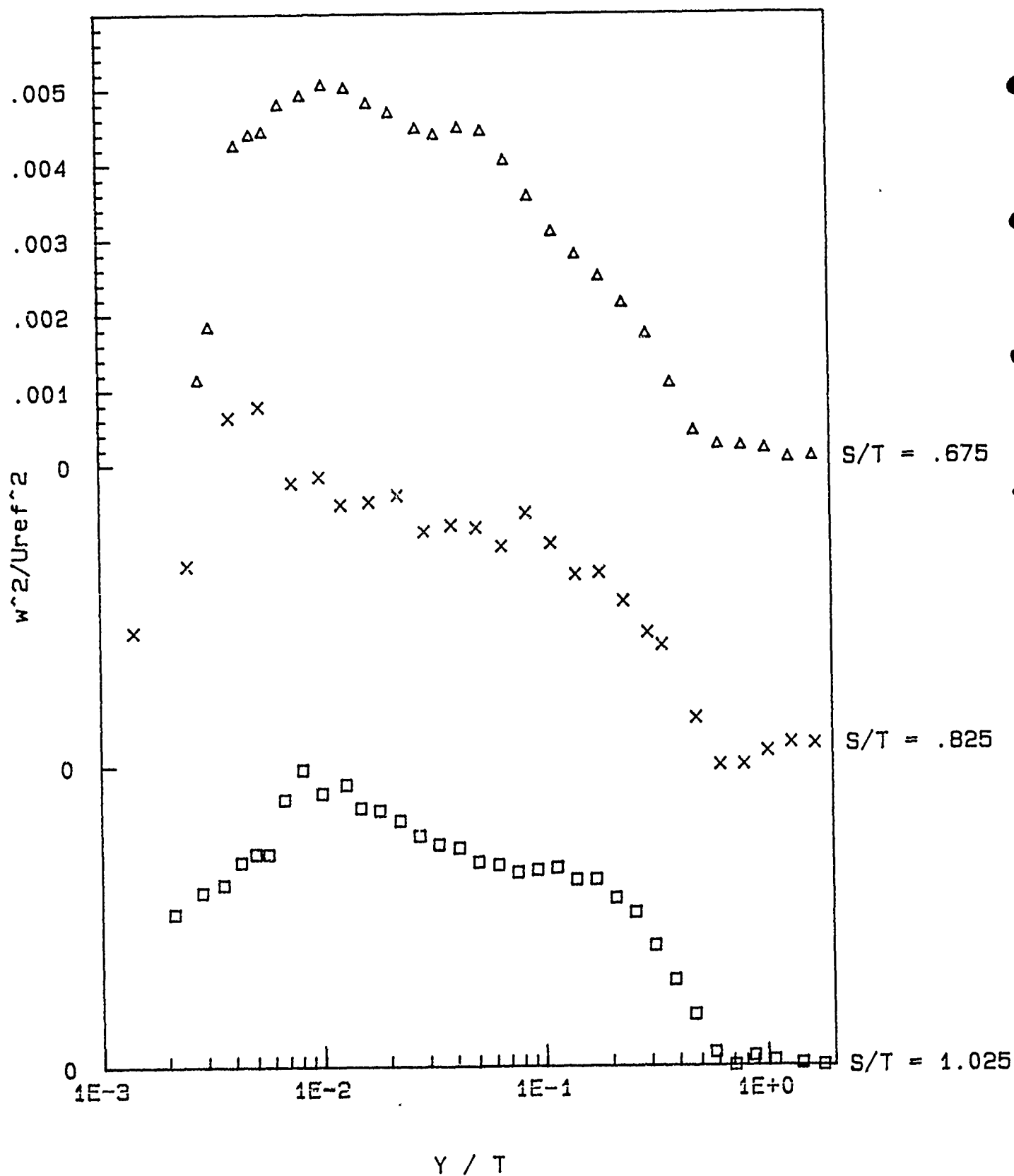


Figure F.4-6(a) Profiles of W-component of turbulence normal stress, plane 5.

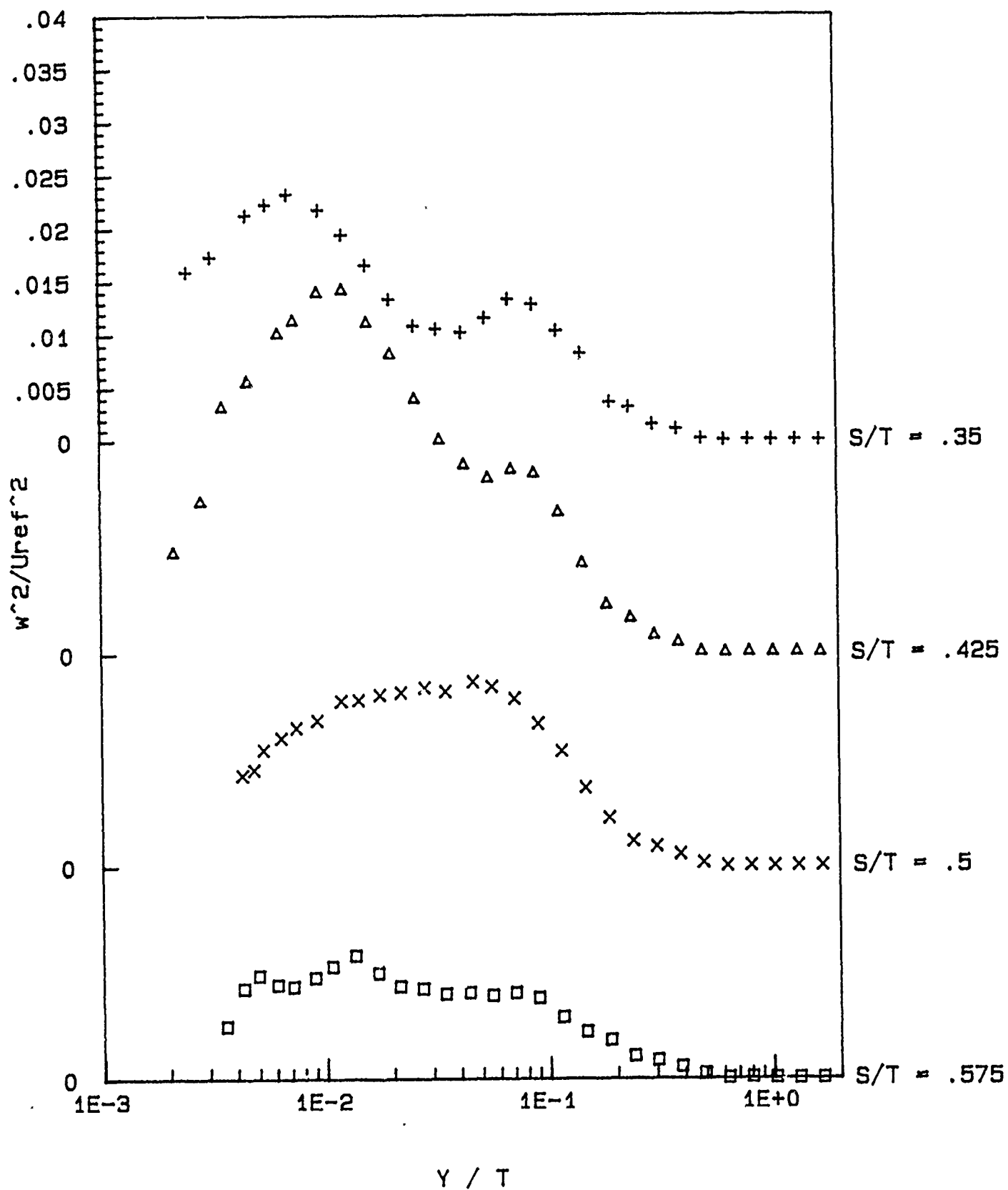


Figure F.4-6(b) Profiles of W-component of turbulence normal stress, plane 5.

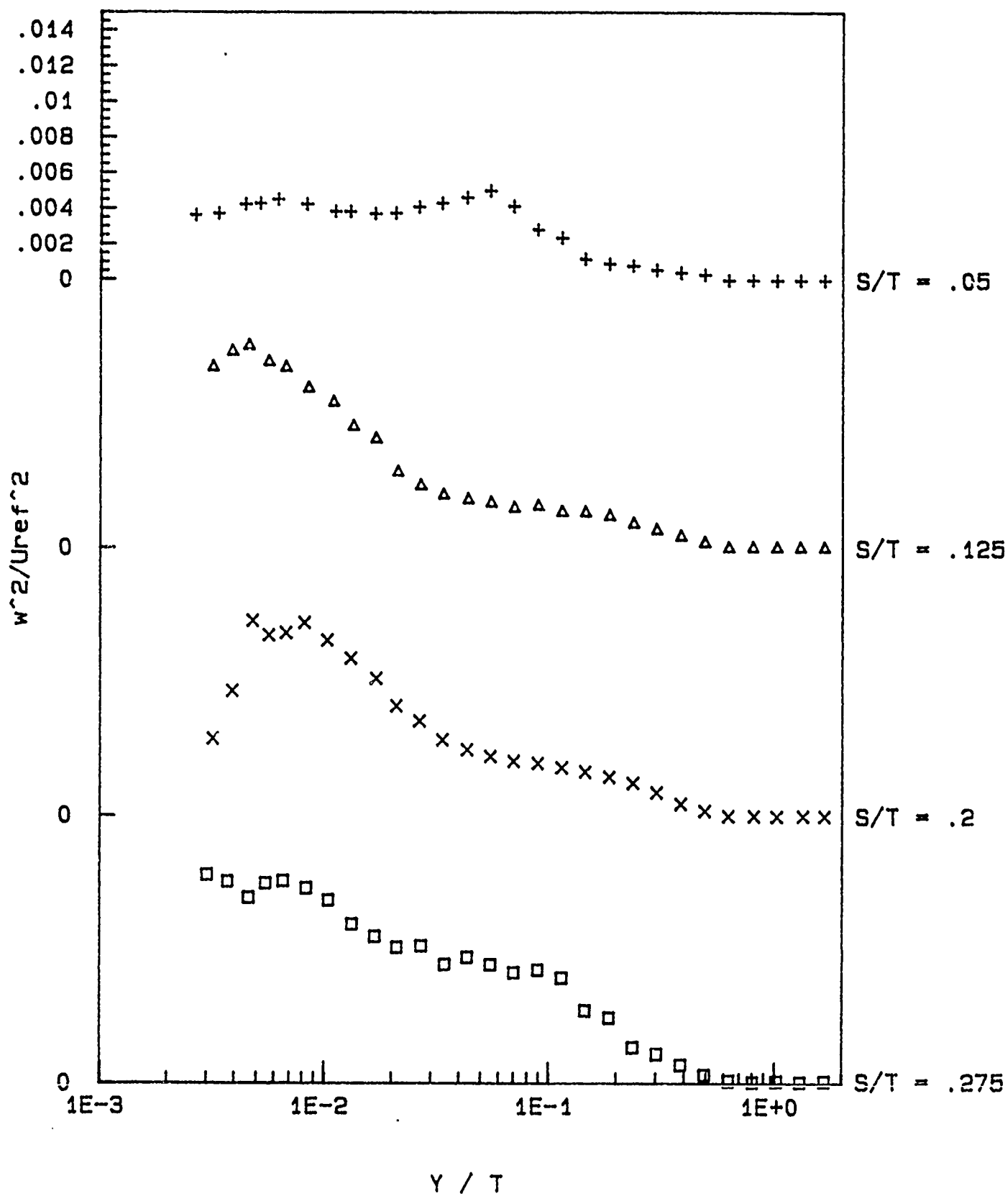


Figure F.4-6(c) Profiles of W-component of turbulence normal stress, plane 5.

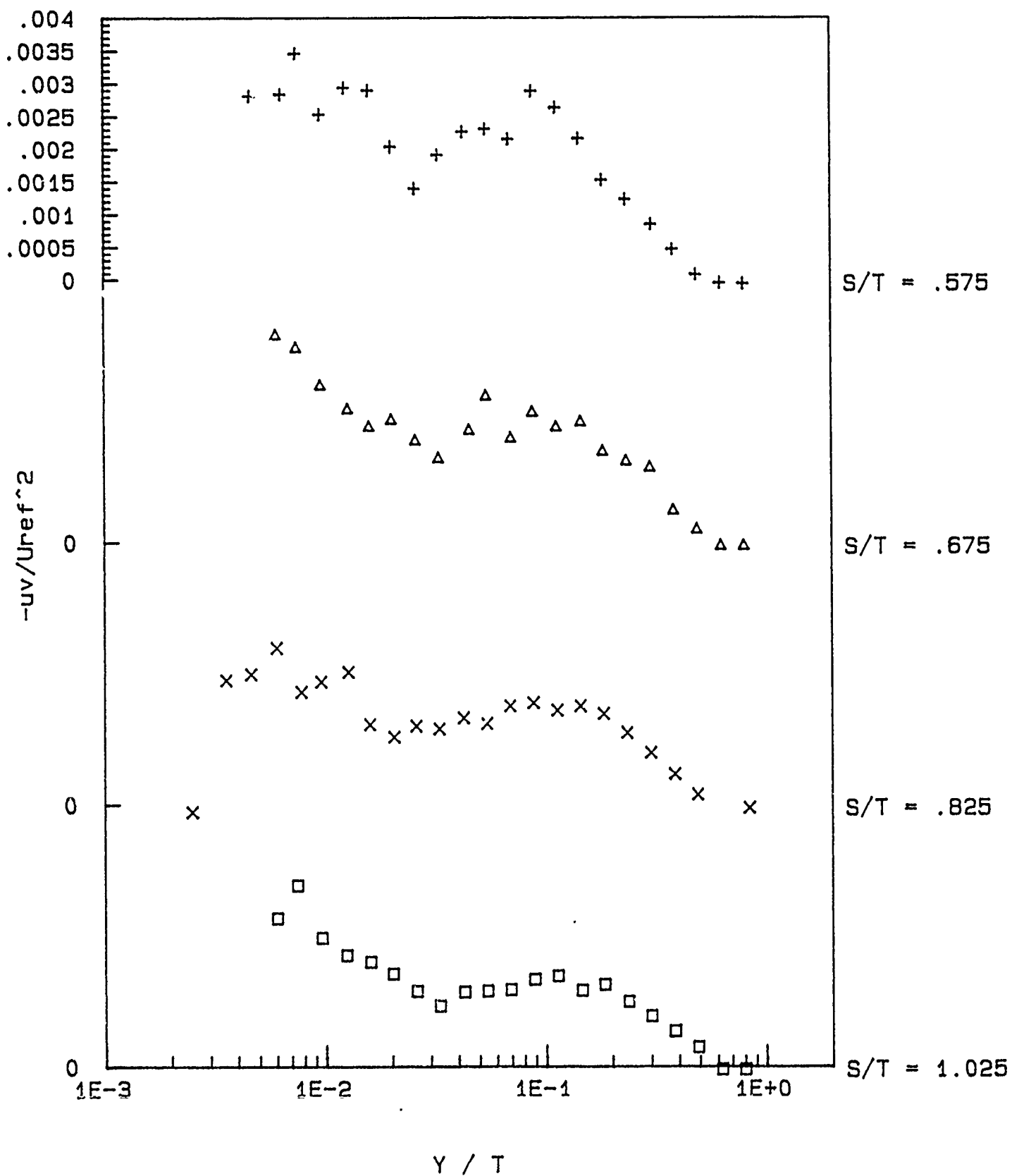


Figure F.4-7(a) Profiles of UV Reynolds shear stress, plane 5.

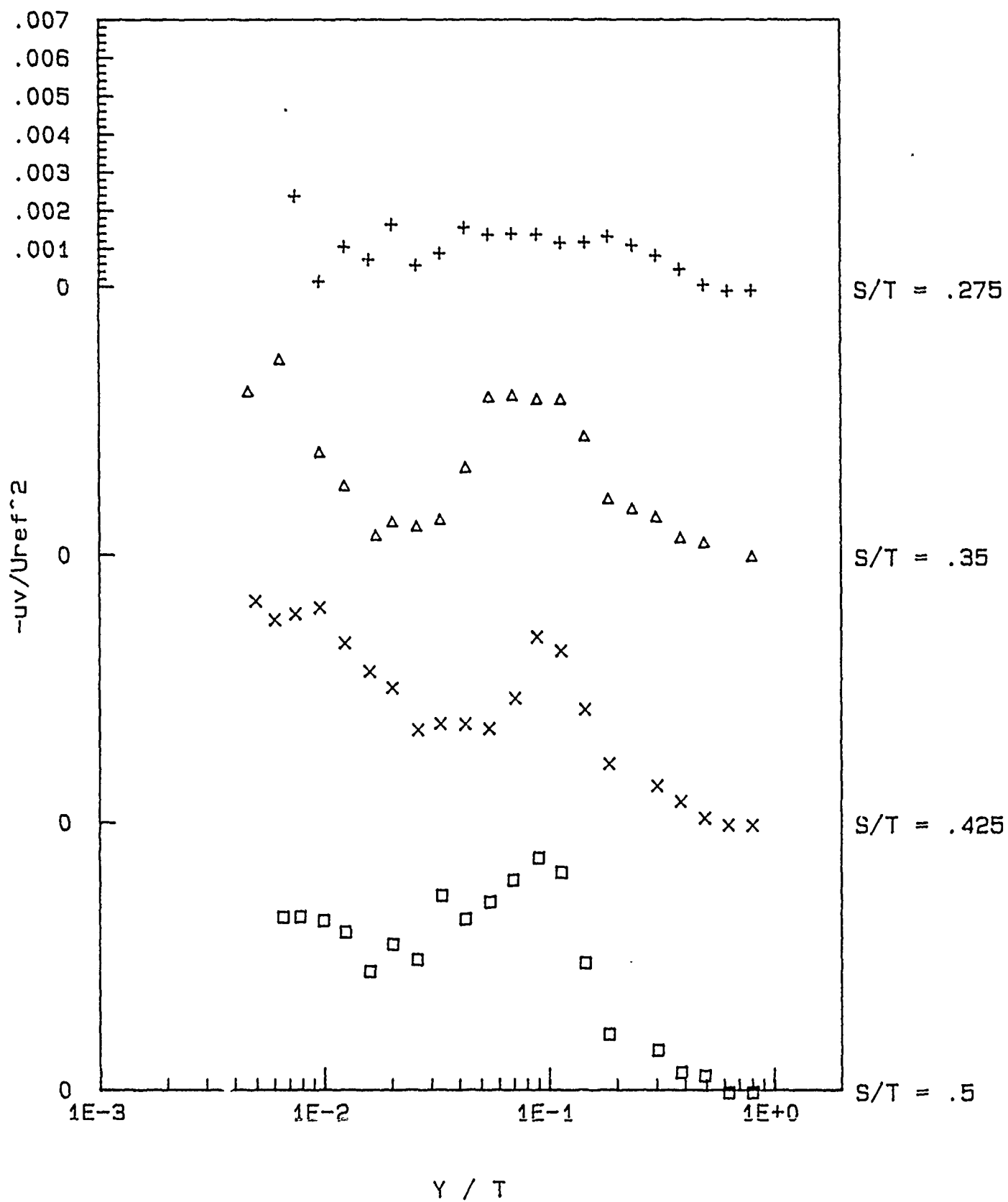


Figure F.4-7(b) Profiles of UV Reynolds shear stress, plane 5.

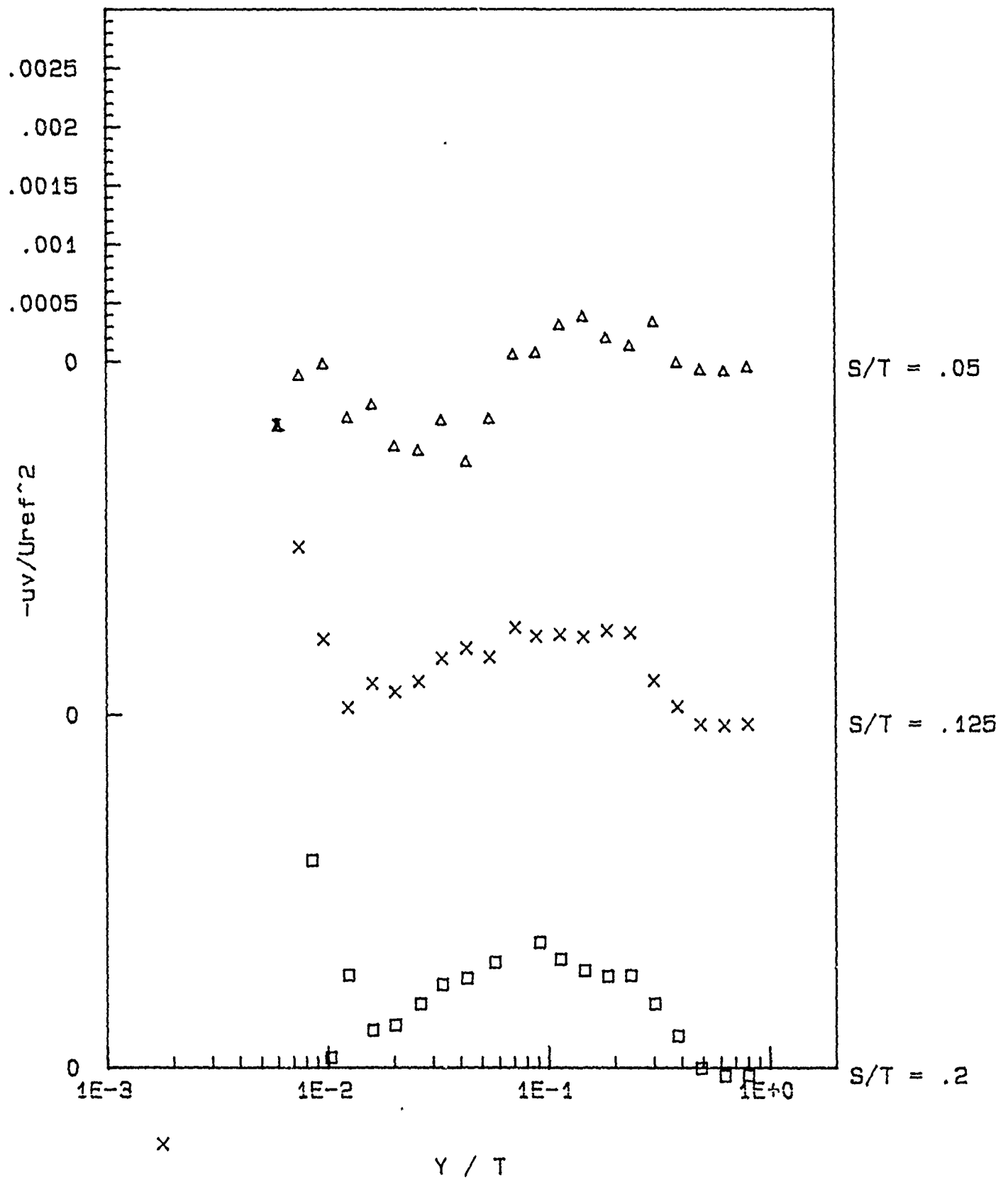


Figure F.4-7(c) Profiles of UV Reynolds shear stress, plane 5.

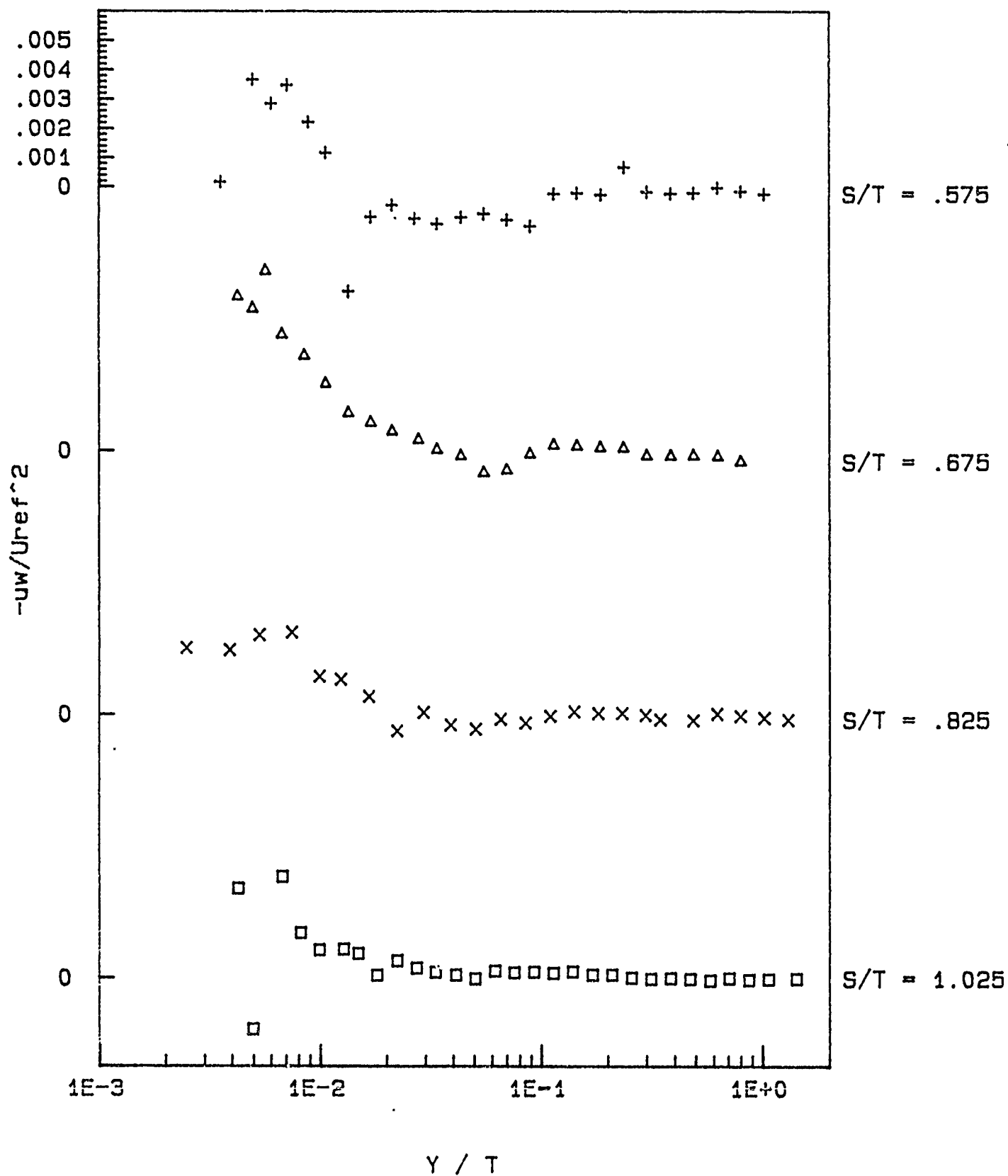


Figure F.4-8(a) Profiles of UW Reynolds shear stress, plane 5.

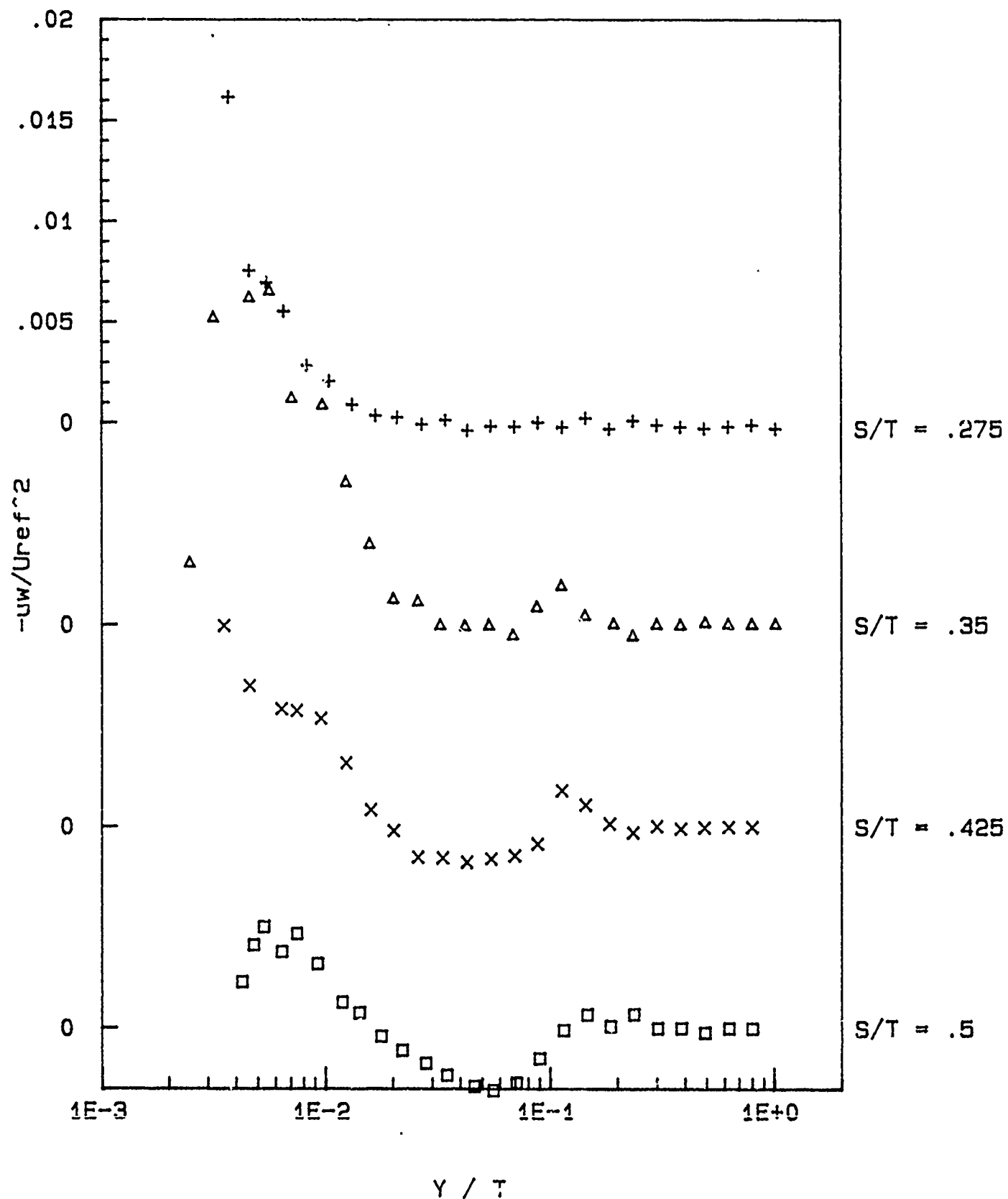


Figure F.4-8(b) Profiles of UW Reynolds shear stress, plane 5.

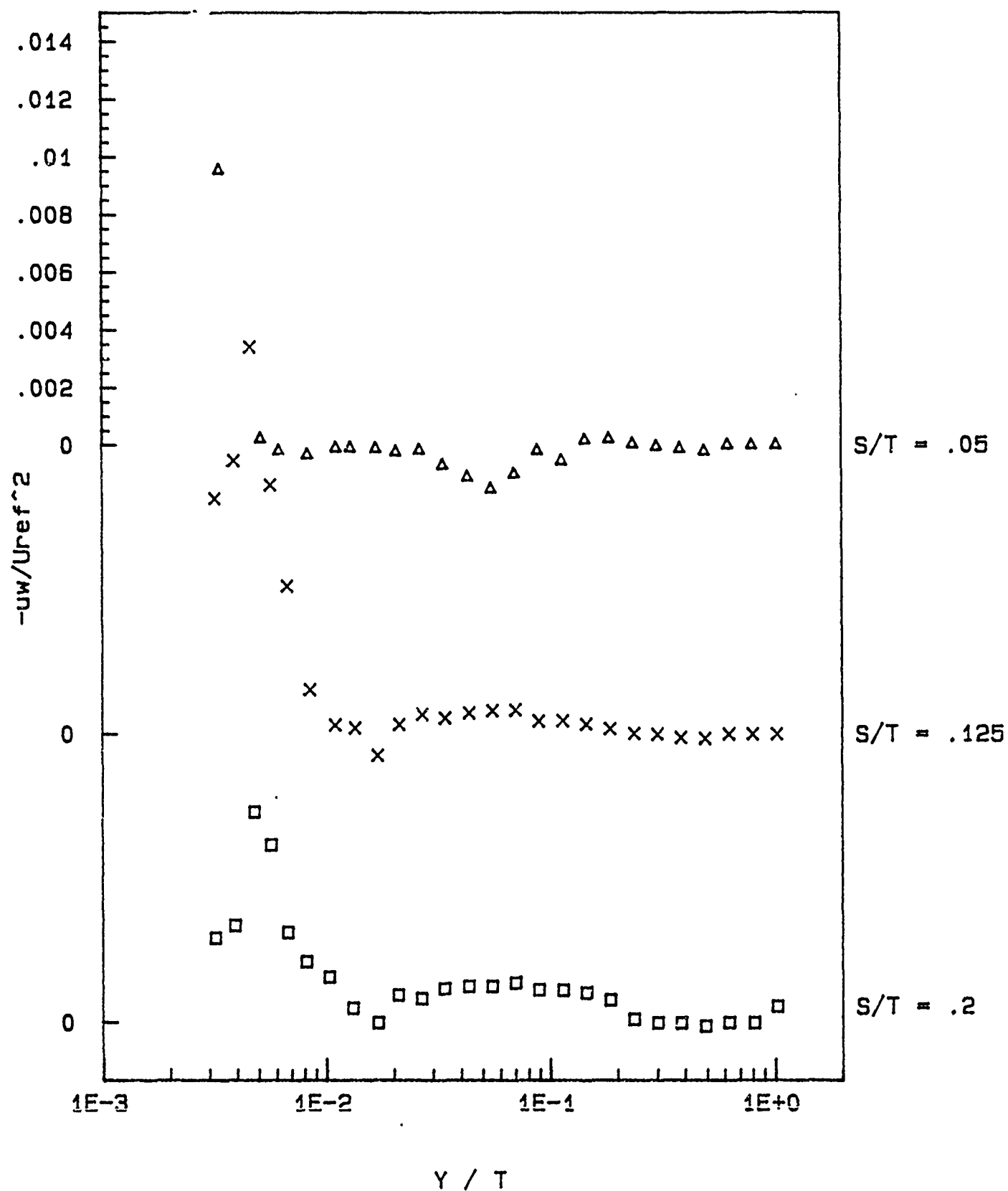


Figure F.4-8(c) Profiles of UW Reynolds shear stress, plane 5.

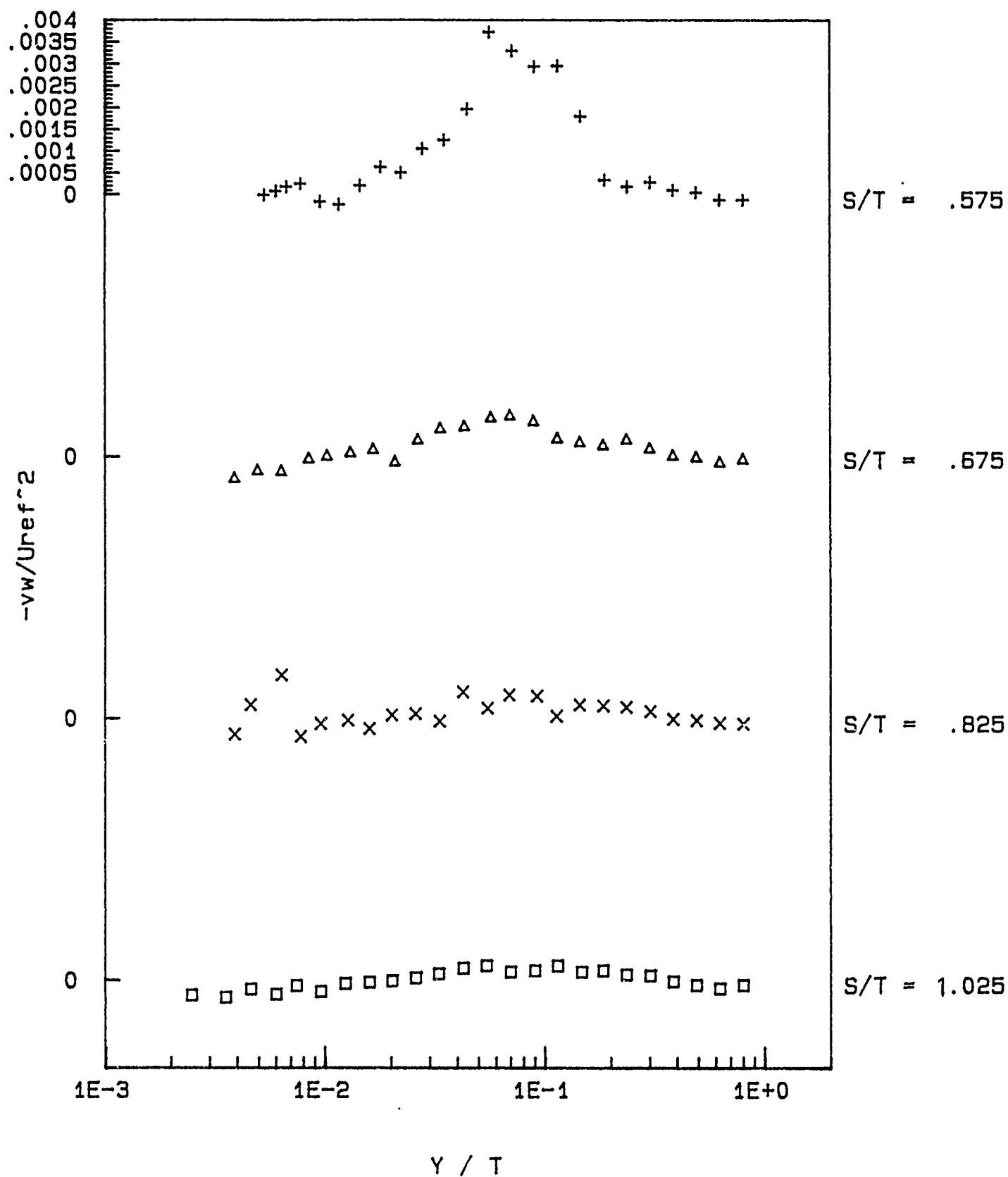


Figure F.4-9(a) Profiles of VW Reynolds shear stress, plane 5.

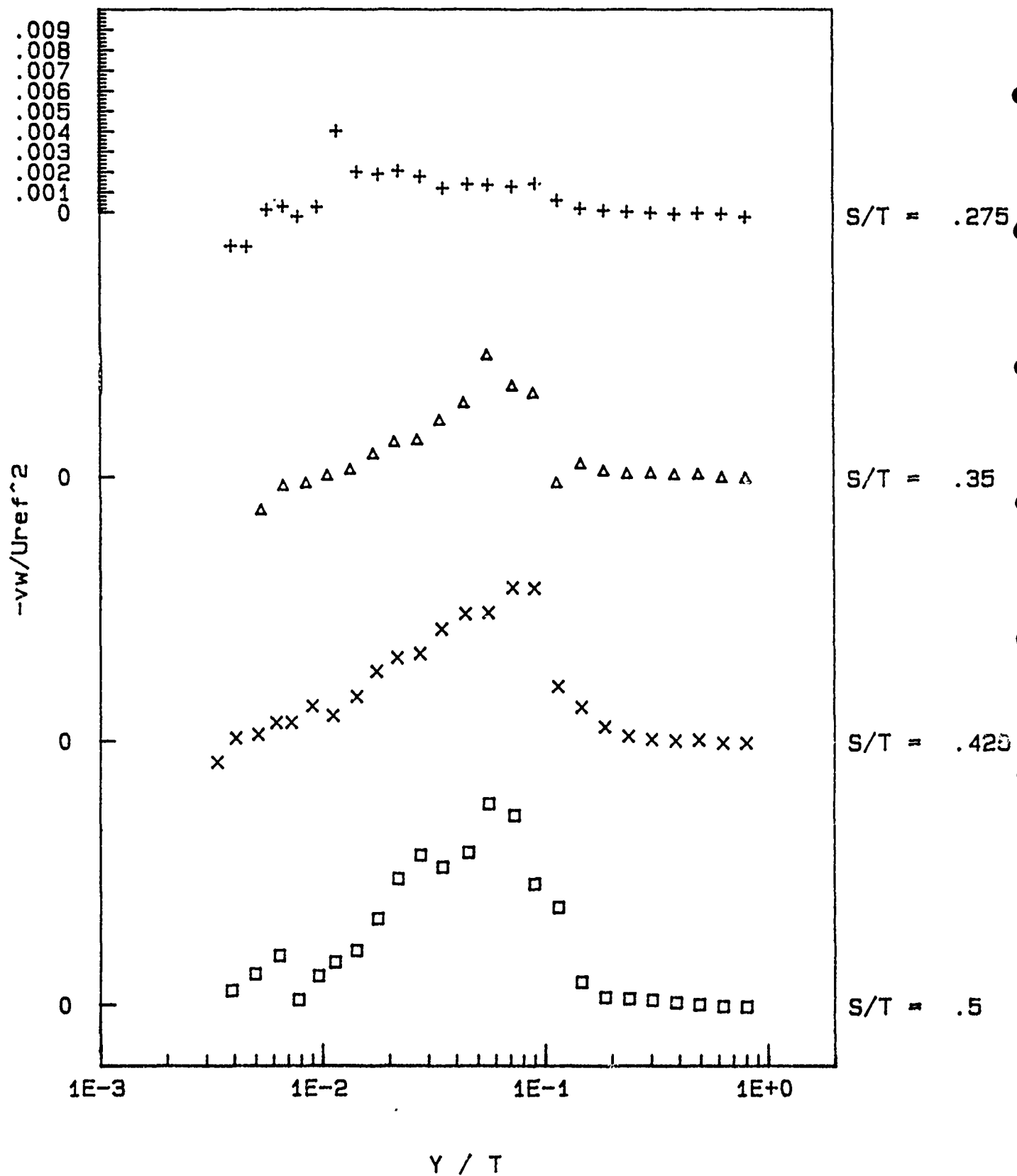


Figure F.4-9(b) Profiles of VW Reynolds shear stress, plane 5.

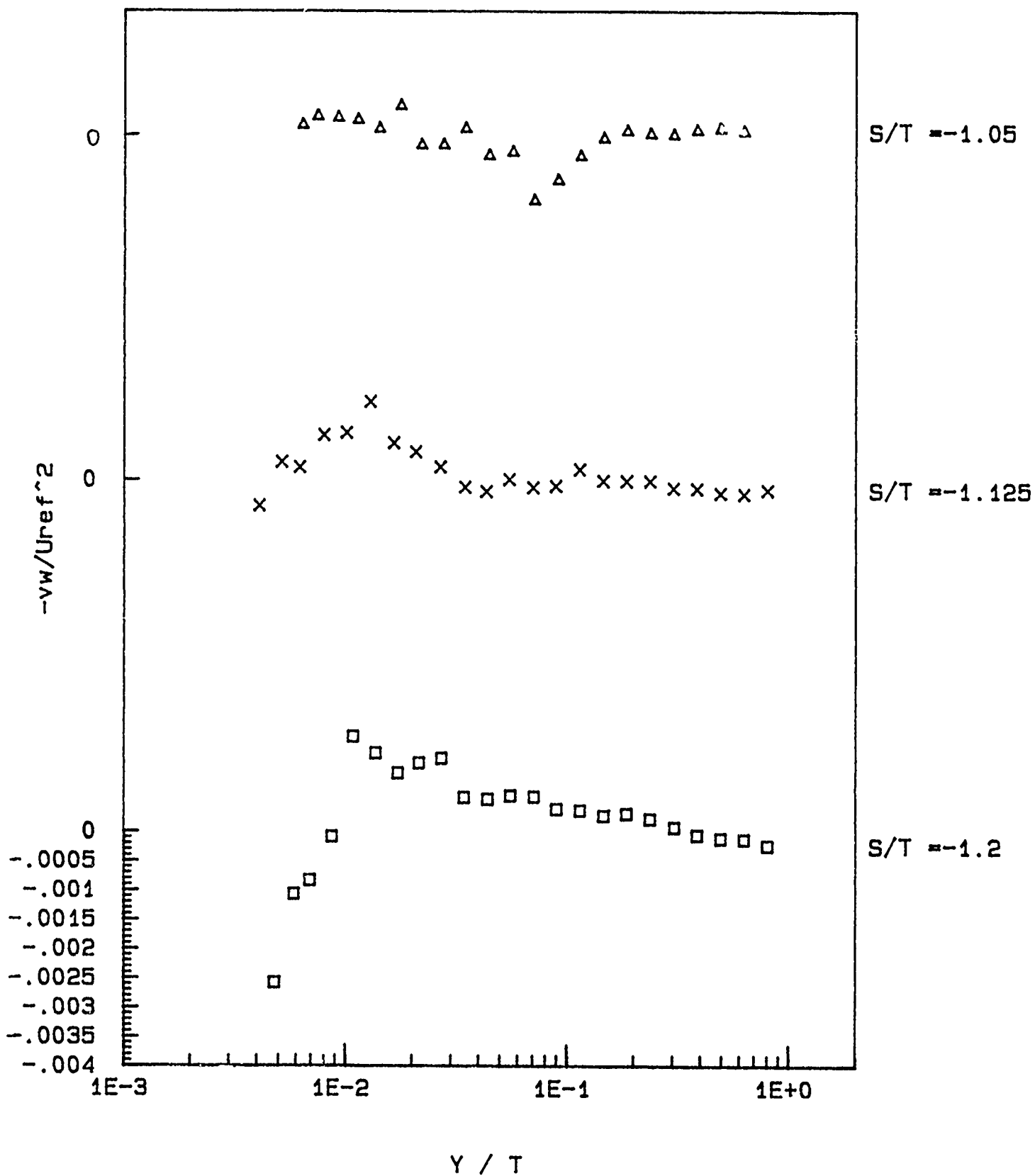


Figure F.4-9(c) Profiles of VW Reynolds shear stress, plane 5.

File E519770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.2

density (kilograms per meter cubed) = 1.124158

viscosity (meters squared per second) = 1.621694E-05

Atmospheric pressure (Pascals) = 95285

Velocity of undisturbed free stream (Uref, in m/s) = 27.68443

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089955E-03

Estimated momentum thickness Reynolds number = 6982.089

Location of traverse; X/T = .75 Z/T = -1.525 (Plane 5, S/T = 1.03)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.7333E-01	1.6749E-02			4.9073E-04	1.4646E-05			
2.4788E-03	1.9459E-01	8.9327E-03			1.3486E-03	2.1521E-05			
3.5411E-03	3.8550E-01	9.2887E-03			-5.0177E-03	1.1981E-04	-7.5369E-01	3.3431E+00	
4.6034E-03	5.1277E-01	9.2436E-03			-9.4973E-03	3.4546E-04	-5.6333E-01	2.1523E+00	
6.0198E-03	5.7033E-01	1.3678E-02	-4.9502E-01	1.0223E+00	-1.3148E-02	6.8958E-04	-1.7095E-01	8.7344E-01	-2.2659E-03
7.4363E-03	5.9042E-01	1.2659E-02	-4.7567E-01	3.8695E-01	-1.3161E-02	1.0014E-03	-1.5363E-01	1.0386E+00	-2.7654E-03
9.5609E-03	6.6689E-01	9.0127E-03	-3.6883E-01	5.8617E-01	-1.4631E-02	1.5480E-03	1.5051E-01	2.6824E-01	-1.9655E-03
1.2394E-02	6.8659E-01	7.4493E-03	-3.0063E-01	3.5389E-02	-1.5829E-02	1.6857E-03	1.1747E-01	2.5093E-01	-1.7005E-03
1.5935E-02	7.0834E-01	6.2318E-03	-2.0096E-01	-1.4049E-01	-1.6850E-02	1.7760E-03	2.1935E-01	2.1447E-01	-1.5977E-03
2.0184E-02	7.3426E-01	5.6691E-03	-1.0683E-01	-1.0483E-01	-1.6428E-02	1.7221E-03	2.4137E-01	9.9006E-02	-1.4129E-03
2.5850E-02	7.6456E-01	4.9232E-03	2.4103E-02	-1.7579E-01	-1.4325E-02	1.6865E-03	2.0572E-01	1.5359E-01	-1.1480E-03
3.2932E-02	7.7799E-01	4.5288E-03	7.5568E-03	-2.8304E-01	-1.4947E-02	1.7061E-03	1.1675E-01	2.1010E-01	-9.2151E-04
4.2493E-02	7.9825E-01	4.3835E-03	1.1420E-01	-2.5054E-01	-9.4971E-03	1.6794E-03	3.9847E-02	-1.0017E-02	-1.1362E-03
5.4178E-02	8.1558E-01	4.1197E-03	5.3350E-02	-3.2782E-01	-1.2186E-02	1.7798E-03	4.1738E-02	-5.7034E-02	-1.1533E-03
6.9051E-02	8.3072E-01	4.0351E-03	5.4943E-02	-3.8829E-01	-8.3385E-03	1.8608E-03	-3.0462E-02	-9.8114E-02	-1.1713E-03
8.8527E-02	8.5012E-01	3.9599E-03	3.5467E-02	-4.0262E-01	-8.1053E-03	1.9635E-03	1.0002E-02	-1.4240E-01	-1.3286E-03
1.1296E-01	8.6881E-01	3.9937E-03	-1.9865E-02	-3.4050E-01	-7.1921E-03	1.9159E-03	9.0133E-02	-1.5229E-01	-1.3825E-03
1.4518E-01	8.9602E-01	3.8999E-03	-8.7700E-02	-3.4017E-01	-3.4011E-03	1.9820E-03	6.8323E-02	-1.6469E-01	-1.1600E-03
1.8449E-01	9.2202E-01	3.6138E-03	-1.2057E-01	-3.5320E-01	-2.7388E-03	1.8559E-03	1.1609E-01	-1.3779E-01	-1.2499E-03
2.3690E-01	9.5756E-01	3.2194E-03	-2.5359E-01	-2.3905E-01	-1.5719E-03	1.6766E-03	1.3873E-01	-7.8820E-02	-9.9244E-04
3.0028E-01	9.9843E-01	2.6701E-03	-3.8965E-01	-1.3666E-01	2.5355E-03	1.4481E-03	2.4466E-01	-3.2449E-04	-7.6728E-04
3.8350E-01	1.0406E+00	1.8429E-03	-5.7497E-01	1.6052E-01	3.7205E-03	1.0595E-03	3.9244E-01	2.2376E-01	-5.3644E-04
4.8973E-01	1.0826E+00	6.5506E-04	-9.4890E-01	1.0139E+00	-2.1044E-03	3.9355E-04	4.9900E-01	7.8715E-01	-2.9472E-04
6.2571E-01	1.1007E+00	1.1580E-04	-3.5833E-02	-3.9956E-01	-3.8860E-03	1.1152E-04	6.4136E-02	-2.7114E-01	4.6316E-05
7.9887E-01	1.1008E+00	1.0974E-04	-9.6807E-02	-3.2423E-01	-4.3498E-03	9.4840E-05	8.1202E-02	-4.2202E-01	4.5893E-05
1.0202E+00	1.1022E+00	1.0605E-04	-1.7163E-01	-4.2789E-01	-7.8938E-03	1.0092E-04	6.3057E-02	-4.4748E-01	
1.3028E+00	1.1006E+00	1.0670E-04	-1.7555E-01	-4.4196E-01	-6.3153E-03	9.5293E-05	4.7915E-02	-4.8435E-01	
1.6678E+00	1.0990E+00	1.0531E-04	-1.9226E-01	-3.2980E-01	-2.0940E-03	9.6269E-05	7.5768E-02	-4.4565E-01	

Table F.4-1 Velocity measurements made at S/T = 1.03 with the UV system of the laser anemometer, plane 5

File E520770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.6

density (kilograms per meter cubed) = 1.125288

viscosity (meters squared per second) = 1.62176E-05

Atmospheric pressure (Pascals) = 95510

Velocity of undisturbed free stream (Uref, in m/s) = 27.67157

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090335E-03

Estimated momentum thickness Reynolds number = 6979.211

Location of traverse; X/T = .75 Z/T = -1.325 (Plane 5, S/T = 0.83)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	3.2422E-01	1.1164E-02			-2.5785E-03	5.9596E-05			
2.4788E-03	4.1237E-01	1.1716E-02			-3.6012E-03	1.6131E-04	-3.8600E-01	2.8453E+00	1.1084E-04
3.5411E-03	5.4661E-01	7.7869E-03			-1.2197E-02	4.9332E-04	-3.4381E-01	1.5808E+00	-1.8983E-03
4.6034E-03	5.9093E-01	1.1191E-02			-1.4733E-02	9.4543E-04	-1.7064E-01	6.8053E-01	-1.9889E-03
6.0198E-03	6.6837E-01	9.4887E-03			-1.4471E-02	1.4158E-03	2.5381E-02	5.8171E-01	-2.3933E-03
7.7904E-03	6.8846E-01	9.4237E-03	-4.3203E-01	3.5112E-01	-1.8274E-02	1.7304E-03	-1.3336E-01	6.1055E-01	-1.7181E-03
9.5609E-03	7.1337E-01	7.9216E-03	-3.3120E-01	1.5210E-01	-1.8514E-02	1.8076E-03	1.8573E-01	3.4790E-01	-1.8753E-03
1.2748E-02	7.3789E-01	6.6036E-03	-1.6210E-01	-9.6832E-02	-1.9464E-02	1.8591E-03	2.4245E-01	2.7841E-01	-2.0240E-03
1.5935E-02	7.5782E-01	5.4830E-03	-9.4781E-02	-9.9413E-03	-2.1633E-02	1.8421E-03	2.4983E-01	2.1866E-01	-1.2206E-03
2.0538E-02	7.7693E-01	4.9010E-03	-1.1645E-02	-1.4606E-01	-2.0431E-02	1.8021E-03	2.2814E-01	1.2696E-01	-1.0282E-03
2.5850E-02	7.9077E-01	4.4467E-03	3.8011E-02	-1.8664E-01	-1.9136E-02	1.7804E-03	2.0277E-01	1.6264E-01	-1.1979E-03
3.2932E-02	8.0836E-01	4.3663E-03	4.7186E-02	-2.4017E-01	-1.6539E-02	1.7850E-03	5.2108E-02	5.1385E-02	-1.1524E-03
4.2493E-02	8.2512E-01	4.1175E-03	8.9145E-02	-2.5554E-01	-1.3187E-02	1.8202E-03	5.7155E-02	-7.4970E-02	-1.3192E-03
5.4178E-02	8.3765E-01	4.0839E-03	9.6826E-02	-3.0277E-01	-1.2131E-02	1.9600E-03	1.3081E-02	-1.8690E-02	-1.2332E-03
6.9051E-02	8.5485E-01	4.1634E-03	4.8034E-02	-3.5022E-01	-8.5031E-03	2.0761E-03	7.7854E-03	-6.0688E-02	-1.5020E-03
8.8173E-02	8.7339E-01	4.2288E-03	2.6131E-02	-3.3906E-01	-5.6954E-03	2.1969E-03	8.3237E-02	-1.3449E-01	-1.5496E-03
1.1296E-01	8.9456E-01	4.1422E-03	-2.3306E-02	-3.6907E-01	-3.2497E-03	2.0461E-03	9.6652E-02	-1.8812E-01	-1.4356E-03
1.4412E-01	9.2101E-01	4.0522E-03	-1.2322E-01	-3.3410E-01	-1.8578E-03	2.0860E-03	1.1797E-01	-1.7332E-01	-1.4999E-03
1.8414E-01	9.4874E-01	3.6286E-03	-1.6864E-01	-3.2424E-01	-1.3736E-03	2.0468E-03	1.3460E-01	-3.5368E-02	-1.3817E-03
2.3513E-01	9.8416E-01	3.1643E-03	-2.4317E-01	-2.7299E-01	-1.9238E-03	1.7518E-03	1.8224E-01	-1.1177E-01	-1.0921E-03
3.0028E-01	1.0246E+00	2.4811E-03	-3.8795E-01	-1.6092E-01	9.9597E-04	1.4561E-03	2.5269E-01	2.8685E-02	-7.8680E-04
3.8598E-01	1.0683E+00	1.5968E-03	-5.8674E-01	8.4121E-02	-1.0398E-03	1.0731E-03	3.6683E-01	2.6258E-01	-4.6149E-04
4.8973E-01	1.1062E+00	4.5640E-04	-9.8409E-01	1.2294E+00	-1.7534E-03	4.5813E-04	5.3446E-01	6.1582E-01	-1.4986E-04
6.2642E-01	1.1122E+00				-4.9376E-03	1.5700E-04	1.1282E-01	-3.3896E-01	
8.3782E-01	1.1215E+00	8.8788E-05	-1.5957E-01	-4.2063E-01	-6.8573E-03	1.2902E-04	-7.6199E-02	-5.1246E-01	5.5162E-05
1.0372E+00	1.1218E+00	8.7124E-05	-1.4757E-01	-3.7781E-01	-8.3623E-03	1.2503E-04	-4.5749E-02	-5.9034E-01	
1.3028E+00		7.7648E-05	-1.3598E-01	-4.4975E-01	-7.0132E-03	1.2646E-04	4.3914E-02	-5.5867E-01	
1.6636E+00	1.1179E+00	7.9287E-05	-1.8264E-01	-2.9019E-01	-1.8926E-03	1.2558E-04	-1.0539E-02	-5.8496E-01	

Table F.4-2 Velocity measurements made at S/T = 0.83 with the UV system of the laser anemometer, plane 5

File E521770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.4

density (kilograms per meter cubed) = 1.115612

viscosity (meters squared per second) = 1.639239E-05

Atmospheric pressure (Pascals) = 94945

Velocity of undisturbed free stream (Uref, in m/s) = 27.66036

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090667E-03

Estimated momentum thickness Reynolds number = 6902.552

Location of traverse; X/T = .75 Z/T = -1.175 (Plane 5, S/T = 0.67)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	1.5330E-01				-1.6915E-03	7.1426E-05	-8.8263E-01	2.5143E+00	
2.4788E-03	1.3475E-01				6.5397E-05	7.9668E-05			
3.5411E-03	4.7460E-01				-6.6415E-03	2.7480E-04	-5.6985E-01	2.1447E+00	
4.6034E-03	6.1345E-01				-1.3118E-02	8.3736E-04	-1.3220E-01	1.3955E+00	
6.0198E-03	6.6094E-01	1.2141E-02			-1.8714E-02	1.5335E-03	-2.8877E-02	7.3406E-01	-3.1485E-03
7.4363E-03	7.0555E-01	1.0770E-02	-5.2665E-01	8.1532E-01	-2.1989E-02	1.8823E-03	2.5394E-02	6.5645E-01	-2.9562E-03
9.5609E-03	7.2885E-01	9.5147E-03	-4.2311E-01	2.8755E-01	-2.3814E-02	2.0431E-03	1.3375E-01	3.5461E-01	-2.3796E-03
1.2748E-02	7.5799E-01	8.0182E-03	-2.9059E-01	1.0041E-01	-2.6087E-02	2.1926E-03	2.1588E-01	3.3750E-01	-2.0179E-03
1.5935E-02	7.7696E-01	7.0254E-03	-2.1584E-01	6.9115E-02	-2.7288E-02	2.2939E-03	1.1838E-01	2.7881E-01	-1.7494E-03
2.0184E-02	7.9236E-01	6.4092E-03	-1.0050E-01	-2.6621E-02	-2.4959E-02	2.3351E-03	1.5674E-01	2.2721E-01	-1.8552E-03
2.5850E-02	8.0862E-01	6.2868E-03	-2.0107E-02	-4.9124E-02	-2.3076E-02	2.6079E-03	1.6090E-01	4.7662E-01	-1.5383E-03
3.2932E-02	8.2544E-01	5.8698E-03	-4.7401E-02	-9.7336E-02	-2.0085E-02	2.3924E-03	1.4357E-01	1.6830E-01	-1.2657E-03
4.5326E-02	8.4292E-01	5.5125E-03	-5.8221E-02	-1.1011E-01	-1.8801E-02	2.5946E-03	7.6683E-02	7.0285E-02	-1.6955E-03
5.4178E-02	8.5065E-01	4.7734E-03	-2.7353E-02	-2.3366E-01	-1.6055E-02	2.6235E-03	-2.0772E-02	3.4494E-03	-2.2224E-03
7.0113E-02	8.7540E-01	4.8621E-03	3.8988E-03	-2.7458E-01	-1.1765E-02	2.7494E-03	6.3573E-02	-1.2020E-01	-1.5744E-03
8.8173E-02	8.9307E-01	4.9140E-03	-5.3267E-02	-2.9660E-01	-5.3756E-03	2.6822E-03	9.9373E-02	-1.6410E-01	-1.9721E-03
1.1296E-01	9.1612E-01	4.7822E-03	-1.1251E-01	-3.2346E-01	-1.8396E-03	2.6365E-03	1.6866E-01	-2.6096E-02	-1.7461E-03
1.4589E-01	9.4495E-01	4.2861E-03	-1.5443E-01	-2.8594E-01	8.1254E-04	2.4065E-03	1.6216E-01	-5.0892E-02	-1.8226E-03
1.8414E-01	9.7165E-01	3.7955E-03	-2.3076E-01	-2.4944E-01	2.4573E-03	2.4187E-03	1.0219E-01	1.6917E-01	-1.3714E-03
2.3513E-01	1.0085E+00	3.3393E-03	-3.0992E-01	-2.3727E-01	2.0298E-03	1.9986E-03	2.3056E-01	8.7070E-02	-1.2229E-03
3.0028E-01	1.0522E+00	2.4704E-03	-4.0004E-01	-1.5167E-01	1.7787E-04	1.5386E-03	2.7719E-01	5.6618E-02	-1.1264E-03
3.8350E-01	1.0915E+00	1.6105E-03	-5.9956E-01	1.5899E-01	-2.4667E-03	1.0793E-03	4.0533E-01	3.0023E-01	-4.7136E-04
4.8973E-01	1.1318E+00	4.2186E-04	-9.3729E-01	1.3926E+00	-7.3221E-03	3.9080E-04	5.6552E-01	7.1721E-01	-1.8146E-04
6.2571E-01	1.1431E+00	1.2233E-04	-8.9674E-02	-3.2476E-01	-1.0014E-02	1.3631E-04	1.3065E-01	-3.9532E-01	6.9535E-05
7.9958E-01	1.1426E+00	1.1605E-04	-1.5271E-01	-4.6688E-01	-1.4790E-02	1.1883E-04	9.3905E-02	-4.8077E-01	7.0649E-05
1.0202E+00	1.1467E+00	1.0960E-04	-2.3823E-01	-3.1139E-01	-9.7758E-03	1.1768E-04	2.0176E-03	-4.8602E-01	
1.3028E+00	1.1463E+00	9.9011E-05	-1.7433E-01	-4.4165E-01	-6.4989E-03	1.1113E-04	2.3460E-02	-5.1763E-01	
1.6636E+00	1.1438E+00	9.6976E-05	-2.2340E-01	-3.4538E-01	-2.5568E-03	1.1348E-04	3.4795E-02	-4.7797E-01	

Table F.4-3 Velocity measurements made at S/T = 0.67 with the UV system of the laser anemometer, plane 5

File E522770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.3

density (kilograms per meter cubed) = 1.112756

viscosity (meters squared per second) = 1.643018E-05

Atmospheric pressure (Pascals) = 94670

Velocity of undisturbed free stream (Uref, in m/s) = 27.692

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089732E-03

Estimated momentum thickness Reynolds number = 6892.976

Location of traverse; X/T = .75 Z/T = -1.075 (Plane 5, S/T = 0.58)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.3739E-01				-5.6865E-04	5.1285E-05			
2.4788E-03	3.2266E-01				-6.4160E-04	6.4663E-05			
3.5411E-03	5.7386E-01				-1.0308E-02	3.4742E-04	-4.2604E-01	2.3807E+00	
4.6034E-03	6.4093E-01	1.0494E-02			-1.7178E-02	9.9037E-04	-1.4613E-01	1.0578E+00	-2.8113E-03
6.3739E-03	7.1883E-01	1.1867E-02	-5.4939E-01	1.0729E+00	-2.1933E-02	1.7163E-03	2.5539E-02	5.7065E-01	-2.8397E-03
7.4363E-03	7.3681E-01	1.1592E-02	-4.3747E-01	4.2439E-01	-2.4490E-02	1.9853E-03	5.8986E-02	3.8584E-01	-3.4594E-03
9.5609E-03	7.5376E-01	1.0039E-02	-3.4393E-01	1.5346E-01	-2.7296E-02	2.3155E-03	1.5482E-01	2.6529E-01	-2.5287E-03
1.2394E-02	7.8798E-01	8.5791E-03	-2.8606E-01	7.1428E-02	-2.7509E-02	2.5505E-03	1.6429E-01	3.0343E-01	-2.9374E-03
1.5935E-02	8.0631E-01	7.8464E-03	-2.4016E-01	7.6698E-02	-2.9829E-02	2.8750E-03	1.5409E-01	2.8227E-01	-2.8957E-03
2.0184E-02	8.1817E-01	7.1109E-03	-2.4667E-01	1.8847E-03	-2.6848E-02	3.1791E-03	1.0535E-01	2.1174E-01	-2.0343E-03
2.5850E-02	8.3309E-01	6.5857E-03	-2.4386E-01	6.2153E-02	-2.6926E-02	3.4353E-03	8.6477E-02	3.2006E-01	-1.3925E-03
3.2932E-02	8.4521E-01	6.3505E-03	-1.6521E-01	-3.0166E-02	-2.6287E-02	3.8543E-03	1.5404E-01	2.4773E-01	-1.9099E-03
4.2847E-02	8.5521E-01	6.0969E-03	-1.5226E-01	-3.0307E-02	-2.3833E-02	4.3203E-03	2.0514E-01	3.1144E-01	-2.2629E-03
5.4178E-02	8.6665E-01	6.5308E-03	-1.7983E-01	-1.0326E-03	-1.8831E-02	4.5990E-03	2.7676E-01	2.5472E-01	-2.3078E-03
6.9051E-02	8.7848E-01	6.8302E-03	-2.2986E-01	-5.8923E-03	-1.4858E-02	4.5519E-03	3.3825E-01	2.9414E-01	-2.1496E-03
8.8173E-02	9.0015E-01	7.0806E-03	-2.2979E-01	-1.1862E-02	-2.7715E-03	5.4345E-03	5.7857E-01	6.7647E-01	-2.8850E-03
1.1296E-01	9.2708E-01	6.4349E-03	-2.2918E-01	-1.0949E-01	5.8302E-03	4.7573E-03	5.8389E-01	8.7100E-01	-2.6332E-03
1.4412E-01	9.5249E-01	5.5048E-03	-2.5319E-01	-1.4413E-01	1.1699E-02	3.6397E-03	4.5049E-01	5.8915E-01	-2.1582E-03
1.8414E-01	9.9002E-01	3.9032E-03	-2.7767E-01	-2.0249E-01	9.7438E-03	2.3150E-03	2.5154E-01	-3.2967E-02	-1.5229E-03
2.3513E-01	1.0317E+00	3.0145E-03	-2.7246E-01	-2.8476E-01	5.1819E-03	1.8875E-03	2.2567E-01	-7.5216E-02	-1.2277E-03
3.0666E-01	1.0751E+00	2.1679E-03	-4.3977E-01	-9.0509E-02	1.1273E-03	1.4895E-03	3.0373E-01	9.6488E-02	-8.4580E-04
3.8350E-01	1.1143E+00	1.3586E-03	-5.8670E-01	6.6160E-02	-6.4356E-03	9.3714E-04	3.9427E-01	1.3243E-01	-4.6282E-04
4.8973E-01	1.1504E+00	3.4856E-04	-9.7189E-01	1.6788E+00	-1.1984E-02	3.3813E-04	5.6504E-01	8.2159E-01	-7.8008E-05
6.2642E-01	1.1617E+00	9.9023E-05	-1.6408E-01	-4.2921E-01	-1.3233E-02	1.0318E-04	-4.5303E-02	-2.8267E-01	5.1410E-05
7.9958E-01	1.1607E+00	9.8927E-05	-1.5973E-01	-5.2814E-01	-1.8708E-02	1.0475E-04	-3.3141E-03	-5.5116E-01	6.1723E-05
1.0202E+00	1.1631E+00	9.6490E-05	-1.7786E-01	-5.1942E-01	-1.3258E-02	9.5478E-05	2.9285E-02	-5.4247E-01	
1.3474E+00	1.1592E+00	9.9942E-05	-1.6964E-01	-5.0801E-01	-1.0781E-02	1.0547E-04	8.7639E-02	-5.6282E-01	
1.6636E+00	1.1602E+00	1.0065E-04	-2.2002E-01	-2.2233E-01	-4.1106E-03	8.0063E-05	-4.4080E-02	-4.1392E-01	

Table F.4-4 Velocity measurements made at S/T = 0.58 with the UV system of the laser anemometer, plane 5

File E523770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.7

density (kilograms per meter cubed) = 1.123082

viscosity (meters squared per second) = 1.625368E-05

Atmospheric pressure (Pascals) = 95355

Velocity of undisturbed free stream (Uref, in m/s) = 27.66414

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090555E-03

Estimated momentum thickness Reynolds number = 6962.221

Location of traverse; X/T = .75 Z/T = -1 (Plane 5, S/T = 0.50)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.3708E-01				-4.0232E-03	1.2422E-04	-9.5227E-01	1.5945E+00	
2.4788E-03	1.9121E-01				-4.4814E-03	1.7721E-04	-9.3920E-01	1.8597E+00	
3.5411E-03	2.6971E-01				-7.6681E-03	2.5343E-04	-8.7414E-01	2.4345E+00	
5.3116E-03	6.3759E-01				-2.3066E-02	1.3544E-03	-2.5636E-01	1.3123E+00	
6.5510E-03	7.1518E-01	1.6311E-02			-2.7372E-02	2.0030E-03	-6.9877E-02	7.8987E-01	-4.5246E-03
7.7904E-03	7.3800E-01	1.8792E-02	-4.7794E-01	3.5647E-01	-2.6478E-02	2.6123E-03	1.0685E-01	6.6480E-01	-4.5274E-03
9.9150E-03	7.7767E-01	1.6491E-02	-4.5882E-01	1.1701E-01	-3.0112E-02	3.1297E-03	2.0548E-01	4.5145E-01	-4.4268E-03
1.2394E-02	8.0501E-01	1.4406E-02	-4.6988E-01	1.6837E-01	-2.7958E-02	3.5877E-03	3.3465E-01	4.4386E-01	-4.1308E-03
1.5935E-02	8.2901E-01	1.2214E-02	-4.6981E-01	1.6600E-01	-2.8732E-02	4.6006E-03	2.2384E-01	4.7561E-01	-3.0981E-03
2.0184E-02	8.4273E-01	1.1238E-02	-3.9005E-01	2.3431E-01	-2.4442E-02	5.8708E-03	2.1272E-01	3.8186E-01	-3.8063E-03
2.5850E-02	8.5338E-01	1.0078E-02	-3.6746E-01	1.0665E-01	-2.4167E-02	6.7996E-03	1.6617E-01	4.4627E-03	-3.4073E-03
3.3286E-02	8.5833E-01	1.0096E-02	-3.1912E-01	9.8032E-02	-1.6576E-02	9.2322E-03	2.6482E-01	-3.8606E-02	-5.0835E-03
4.2493E-02	8.6114E-01	1.0252E-02	-3.4413E-01	8.6957E-02	-6.0169E-03	1.1640E-02	3.0308E-01	-1.7941E-01	-4.4667E-03
5.4533E-02	8.6876E-01	1.0721E-02	-2.8112E-01	-4.7810E-03	5.9766E-03	1.3527E-02	3.6265E-01	-2.5855E-01	-4.9117E-03
6.9051E-02	8.7782E-01	1.1349E-02	-2.7992E-01	4.5269E-02	1.9880E-02	1.5234E-02	4.2654E-01	-3.0832E-01	-5.4885E-03
8.9589E-02	9.0006E-01	1.1204E-02	-2.7709E-01	4.8285E-02	3.0912E-02	1.5274E-02	5.6153E-01	-2.3126E-02	-6.0612E-03
1.1296E-01	9.2632E-01	9.9177E-03	-3.3881E-01	1.5237E-01	3.5342E-02	1.2870E-02	7.7360E-01	4.6746E-01	-5.6817E-03
1.4412E-01	9.6189E-01	7.7238E-03	-3.8342E-01	1.8252E-01	2.2346E-02	7.7902E-03	8.2148E-01	1.1045E+00	-3.3166E-03
1.8414E-01	1.0060E+00	5.3617E-03	-2.3689E-01	-8.1519E-02	9.6580E-03	4.1116E-03	4.2861E-01	4.8057E-01	-1.4497E-03
2.3513E-01	1.0425E+00				-1.0259E-03	2.1976E-03	2.6158E-01	5.0868E-02	
3.0276E-01	1.0910E+00	2.3753E-03	-4.2157E-01	-5.3908E-02	-1.0626E-02	1.5511E-03	2.6989E-01	3.0411E-02	-1.0414E-03
3.8421E-01	1.1303E+00	1.4690E-03	-6.2261E-01	2.0265E-01	-1.4502E-02	1.1004E-03	3.5512E-01	2.2592E-01	-4.5738E-04
4.8973E-01	1.1661E+00	3.8858E-04	-8.9671E-01	1.3382E+00	-1.5720E-02	3.4844E-04	3.6723E-01	3.7730E-01	-3.6261E-04
6.2571E-01	1.1786E+00	1.2468E-04	-1.2730E-01	-3.8927E-01	-2.2796E-02	1.4176E-04	6.0237E-02	-3.5050E-01	7.5880E-05
7.9887E-01	1.1782E+00	1.1489E-04	-1.4419E-01	-3.8903E-01	-4.0983E-01	1.2242E-04	1.4163E-01	-4.5774E-01	7.4532E-05
1.0202E+00	1.1821E+00	1.0924E-04	-2.0326E-01	-3.8481E-01	-2.0012E-02	1.2781E-04	6.0902E-02	-4.1904E-01	
1.3028E+00	1.1809E+00	9.6963E-05	-1.7645E-01	-3.7370E-01	-1.2998E-02	1.1899E-04	3.5707E-02	-5.0717E-01	
1.6636E+00	1.1791E+00	9.0413E-05	-1.8384E-01	-3.6633E-01	-6.4485E-03	1.1155E-04	-2.0428E-02	-4.1389E-01	

Table F.4-5 Velocity measurements made at S/T = 0.50 with the UV system of the laser anemometer, plane 5

File E524770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.1

density (kilograms per meter cubed) = 1.121234

viscosity (meters squared per second) = 1.625496E-05

Atmospheric pressure (Pascals) = 95005

Velocity of undisturbed free stream (Uref, in m/s) = 27.67214

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090319E-03

Estimated momentum thickness Reynolds number = 6963.283

Location of traverse; X/T = .75 Z/T = -.925 (Plane 5, S/T = 0.43)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.1567E-01				-8.2514E-03	1.3191E-04			
2.4788E-03	2.8895E-01				-1.4735E-02	3.2519E-04			
3.5411E-03	6.6288E-01				-2.3305E-02	1.3650E-03	-3.1709E-01	1.5089E+00	
4.9575E-03	7.1367E-01	1.7709E-02			-2.2132E-02	2.2438E-03	5.2915E-02	7.2936E-01	-5.7825E-03
6.0198E-03	7.5944E-01	1.9323E-02	-4.7605E-01	7.0000E-01	-3.0024E-02	2.8367E-03	3.7281E-02	6.8939E-01	-5.2885E-03
7.4363E-03	7.9530E-01	1.8414E-02	-4.7984E-01	2.7272E-01	-2.9598E-02	3.5339E-03	2.2714E-01	5.6602E-01	-5.4515E-03
9.5609E-03	8.2132E-01	1.5850E-02	-4.5312E-01	1.0991E-01	-2.5641E-02	4.1825E-03	2.4916E-01	4.1474E-01	-5.6262E-03
1.2394E-02	8.4738E-01	1.3705E-02	-4.9456E-01	3.7390E-01	-2.5241E-02	4.9826E-03	2.9823E-01	3.6949E-01	-4.6895E-03
1.5935E-02	8.6215E-01	1.1482E-02	-3.7047E-01	1.8539E-01	-2.0934E-02	5.8675E-03	1.9485E-01	2.4537E-01	-3.9442E-03
2.0184E-02	8.6576E-01	1.0706E-02	-4.0631E-01	2.6536E-01	-1.4452E-02	7.4823E-03	8.7270E-02	6.4581E-02	-3.5136E-03
2.6204E-02	8.6979E-01	1.0317E-02	-2.6738E-01	1.0643E-01	-7.7994E-03	9.3957E-03	3.8490E-02	-4.8568E-02	-2.4119E-03
3.2932E-02	8.7228E-01	1.0471E-02	-2.0342E-01	9.8178E-02	5.7631E-04	1.1788E-02	1.5692E-02	-1.6610E-01	-2.5799E-03
4.2493E-02	8.7046E-01	1.0582E-02	-1.3619E-01	-2.8543E-02	7.0633E-03	1.5855E-02	2.9138E-02	-3.6659E-01	-2.5683E-03
5.4178E-02	8.7185E-01	1.2050E-02	-1.5167E-01	-5.5767E-02	1.4544E-02	1.9280E-02	4.6230E-02	-4.2300E-01	-2.4497E-03
7.0822E-02	8.8420E-01	1.3536E-02	-2.5441E-01	-8.8952E-03	2.4515E-02	2.4672E-02	6.2186E-02	-5.3560E-01	-3.2468E-03
8.8173E-02	9.1034E-01	1.3585E-02	-2.3256E-01	-1.1355E-01	2.9311E-02	2.6190E-02	1.5759E-01	-4.0595E-01	-4.8482E-03
1.1296E-01	9.5158E-01	1.2055E-02	-2.7886E-01	1.1011E-01	1.4391E-02	1.9396E-02	3.6160E-01	3.5581E-02	-4.4810E-03
1.4412E-01	9.9347E-01	7.8765E-03	-2.6481E-01	9.2236E-02	7.2761E-04	9.8561E-03	6.6025E-01	7.8052E-01	-2.9487E-03
1.8414E-01	1.0318E+00	5.5210E-03	-2.5803E-01	9.5228E-02	-6.3491E-03	4.6205E-03	3.9774E-01	5.2204E-01	-1.5278E-03
2.3513E-01	1.0684E+00				-1.4270E-02	2.1867E-03	2.1223E-01	-1.4006E-02	
3.0099E-01	1.1157E+00	2.3381E-03	-4.7178E-01	1.4449E-01	-1.9893E-02	1.5651E-03	3.0394E-01	1.7007E-01	-9.5887E-04
3.8385E-01	1.1549E+00	1.4354E-03	-6.1139E-01	2.8309E-01	-2.2489E-02	1.0269E-03	2.8473E-01	1.3118E-01	-5.4090E-04
4.9079E-01	1.1893E+00	3.5343E-04	-7.0760E-01	9.9527E-01	-2.6674E-02	3.6839E-04	4.5533E-01	6.6794E-01	-1.0672E-04
6.2571E-01	1.1988E+00	1.3859E-04	-8.4871E-02	-4.1769E-01	-2.5470E-02	1.4389E-04	7.4785E-02	-3.5258E-01	7.6750E-05
7.9887E-01	1.1962E+00	1.2445E-04	-8.4375E-02	-5.1914E-01	-2.9405E-02	1.3059E-04	1.3370E-01	-4.6009E-01	7.8756E-05
1.0202E+00	1.2026E+00	1.1910E-04	-1.1048E-01	-4.5798E-01	-1.9473E-02	1.2305E-04	-2.0375E-02	-4.6283E-01	
1.3057E+00	1.2007E+00	1.1065E-04	-1.1868E-01	-4.7236E-01	-1.2941E-02	1.2073E-04	4.6757E-02	-4.9227E-01	
1.6636E+00	1.1979E+00	9.7844E-05	-1.4803E-01	-4.4805E-01	-4.8020E-03	1.1894E-04	-1.8296E-02	-3.9106E-01	

Table F.4-6 Velocity measurements made at S/T = 0.43 with the UV system of the laser anemometer, plane 5

File E525770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.8

density (kilograms per meter cubed) = 1.117168

viscosity (meters squared per second) = 1.634397E-05

Atmospheric pressure (Pascals) = 94885

Velocity of undisturbed free stream (Uref, in m/s) = 27.64132

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09123E-03

Estimated momentum thickness Reynolds number = 6919.187

Location of traverse; X/T = .75 Z/T = -.85 (Plane 5, S/T = 0.35)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.7332E-01				-1.3965E-02	3.8128E-04	-6.5056E-01	2.4899E+00	
2.6558E-03	3.9107E-01				-1.7705E-02	4.6117E-04			
3.5411E-03	7.1210E-01				-3.0304E-02	1.2685E-03	-3.6643E-01	2.7368E+00	
4.6034E-03	7.4151E-01	1.6696E-02			-3.6791E-02	1.6893E-03	-1.3147E-01	1.8915E+00	-4.2320E-03
6.3739E-03	8.3624E-01	1.7295E-02	-1.0182E+00	2.1181E+00	-4.5714E-02	2.6849E-03	1.4718E-01	1.7311E+00	-5.0624E-03
7.4363E-03	8.7600E-01	1.5284E-02	-9.4287E-01	1.5034E+00	-4.6688E-02	2.8164E-03	3.7904E-01	1.3920E+00	
9.5609E-03	8.9720E-01	1.3326E-02	-8.4221E-01	1.1243E+00	-4.8927E-02	3.7149E-03	3.2216E-01	1.1890E+00	-2.6344E-03
1.2394E-02	9.1068E-01	1.0972E-02	-7.0920E-01	1.1191E+00	-4.7277E-02	4.1989E-03	1.8051E-01	3.3531E-01	-1.7652E-03
1.6997E-02	9.2236E-01	8.3690E-03	-4.7897E-01	7.4300E-01	-5.0548E-02	5.4538E-03	1.0526E-01	2.4631E-01	-4.6281E-04
2.0184E-02	9.2550E-01	8.1618E-03	-3.6802E-01	6.8055E-01	-5.0367E-02	6.6738E-03	1.8622E-01	3.3725E-01	-8.1601E-04
2.5850E-02	9.2418E-01	7.8011E-03	-2.5091E-01	3.2138E-01	-4.8592E-02	7.9051E-03	1.5059E-01	1.1535E-01	-7.0304E-04
3.2932E-02	9.2181E-01	8.3073E-03	-2.5490E-01	3.8510E-01	-5.8185E-02	9.8519E-03	2.0024E-01	6.7486E-02	-8.8175E-04
4.2847E-02	9.1114E-01	9.0364E-03	-2.8264E-01	1.5235E-01	-5.9210E-02	1.2726E-02	3.4005E-01	1.3984E-01	-2.2438E-03
5.4178E-02	9.1368E-01	1.0495E-02	-3.3281E-01	4.0442E-01	-7.0287E-02	1.6475E-02	4.5697E-01	1.8172E-01	-4.0871E-03
6.9051E-02	9.1972E-01	1.2442E-02	-3.5952E-01	3.8320E-01	-7.4210E-02	2.0433E-02	6.7366E-01	2.8377E-01	-4.1272E-03
8.8527E-02	9.5394E-01	1.2730E-02	-3.0075E-01	4.0111E-01	-7.4159E-02	2.0172E-02	8.2154E-01	7.7381E-01	-4.0235E-03
1.1296E-01	9.8927E-01	9.6482E-03	-2.9647E-01	2.6412E-01	-6.4582E-02	1.4557E-02	8.6646E-01	1.1115E+00	-4.0235E-03
1.4412E-01	1.0255E+00	6.4145E-03	-2.8567E-01	1.2717E-01	-5.4739E-02	6.7041E-03	5.9369E-01	7.8062E-01	-3.0602E-03
1.8414E-01	1.0610E+00	4.6986E-03	-2.4273E-01	-7.4808E-02	-3.1365E-02	3.7510E-03	2.1844E-01	5.5295E-02	-1.4236E-03
2.3513E-01	1.0969E+00	3.1125E-03	-3.0217E-01	-2.0005E-01	-2.4601E-02	2.2050E-03	2.3651E-01	5.4489E-02	-1.1643E-03
3.0028E-01	1.1350E+00	2.2364E-03	-4.6653E-01	3.7098E-02	-2.1939E-02	1.5678E-03	2.7574E-01	3.6700E-02	-9.4904E-04
3.8350E-01	1.1752E+00	1.3510E-03	-5.8739E-01	1.7590E-01	-2.1678E-02	1.0907E-03	3.5954E-01	4.8630E-01	-4.0073E-04
4.8973E-01	1.2121E+00	3.8877E-03	-8.3376E-01	1.0907E+00	-2.2522E-02	4.6442E-04	6.8803E-01	1.1571E+00	-2.6909E-04
6.2571E-01	1.2161E+00				-2.0732E-02	1.6113E-04	-7.7190E-02	-4.3163E-02	
7.9887E-01	1.2211E+00	1.1919E-04	-2.2419E-01	-4.1072E-01	-2.3350E-02	1.5356E-04	5.1820E-02	-4.8442E-01	8.5149E-05
1.0202E+00	1.2256E+00	9.5342E-05	-1.2230E-01	-4.2786E-01	-1.2367E-02	1.1347E-04	6.8592E-02	-4.9422E-01	
1.3042E+00	1.2260E+00	8.3796E-05	-1.5417E-01	-4.2316E-01	-5.9520E-03	1.2611E-04	1.2452E-01	-4.1432E-01	
1.6636E+00	1.2245E+00	6.8743E-05	-5.1483E-02	-3.6922E-01	1.5588E-03	9.4812E-05	8.5530E-02	-4.5932E-01	

Table F.4-7 Velocity measurements made at S/T = 0.35 with the UV system of the laser anemometer, plane 5

File E526770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.8

density (kilograms per meter cubed) = 1.106748

viscosity (meters squared per second) = 1.649785E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.65568

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090805E-03

Estimated momentum thickness Reynolds number = 6857.5

Location of traverse; X/T = .75 Z/T = -.775 (Plane 5, S/T = 0.27)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.6226E-01				-4.8263E-03				
2.4788E-03	3.1517E-01				-1.0763E-02	1.9450E-04			
3.5411E-03	6.9825E-01				-2.6206E-02	8.6133E-04	-8.5364E-01	4.7292E+00	
4.6034E-03	8.4589E-01				-3.9992E-02	1.0800E-03	-6.9781E-02	2.2593E+00	
6.0198E-03	9.0886E-01	1.4015E-02			-4.0095E-02	1.3754E-03	5.3589E-02	1.7356E+00	
7.4363E-03	9.3289E-01	1.1984E-02	-1.0091E+00	1.6584E+00	-4.6524E-02	1.5999E-03	-1.4031E-01	1.6619E+00	-2.3798E-03
9.5609E-03	9.7494E-01	9.3063E-03	-1.0180E+00	2.1294E+00	-5.0904E-02	1.8767E-03	1.0574E-01	1.2104E+00	-1.4377E-04
1.2394E-02	9.8942E-01	6.9261E-03	-5.7710E-01	1.0714E+00	-5.3767E-02	2.0039E-03	1.5950E-01	1.1259E+00	-1.0527E-03
1.5935E-02	9.9672E-01	5.4956E-03	-3.4055E-01	6.8258E-01	-5.6377E-02	2.3849E-03	3.2276E-02	6.1725E-01	-7.1182E-04
2.0184E-02	9.9643E-01	4.8746E-03	-1.3235E-01	2.6239E-01	-5.6230E-02	2.8577E-03	-4.7126E-02	3.4050E-01	-1.6399E-03
2.5850E-02	9.9992E-01	4.0849E-03	-1.2483E-01	2.3904E-01	-6.3277E-02	4.1863E-03	-1.5011E-02	2.6497E-01	-5.6838E-04
3.2932E-02	9.9535E-01	4.4006E-03	-1.7886E-01	1.8978E-01	-7.0564E-02	4.0634E-03	-2.0356E-02	4.2809E-01	-8.8424E-04
4.2493E-02	9.9430E-01	4.9216E-03	-2.1352E-01	3.7732E-01	-7.5213E-02	4.5218E-03	9.2822E-02	3.9076E-02	-1.5618E-03
5.4178E-02	9.9936E-01	5.7833E-03	-2.1711E-01	3.4294E-01	-8.7363E-02	5.2929E-03	-8.5293E-02	3.7217E-02	-1.3677E-03
6.9051E-02	1.0030E+00	6.1345E-03	-2.9094E-01	4.9223E-01	-9.1897E-02	5.4323E-03	-4.8042E-02	2.9866E-02	-1.3950E-03
8.8881E-02	1.0227E+00	6.0104E-03	-2.4974E-01	3.7468E-01	-9.8429E-02	5.1110E-03	-1.4064E-01	1.0531E-01	-1.3708E-03
1.1331E-01	1.0456E+00	4.8672E-03	-2.2058E-01	3.6012E-01	-8.9970E-02	3.5786E-03	3.6506E-02	6.4488E-02	-1.1581E-03
1.4518E-01	1.0706E+00	3.7183E-03	-2.4581E-01	-9.1370E-02	-7.6819E-02	3.1027E-03	2.2222E-01	3.5295E-01	-1.1764E-03
1.8414E-01	1.0978E+00	3.0870E-03	-2.4925E-01	-2.0029E-01	-6.0040E-02	2.5093E-03	2.2294E-01	1.4615E-01	-1.3278E-03
2.3513E-01	1.1287E+00	2.6220E-03	-2.9419E-01	-1.2111E-01	-4.9360E-02	2.1466E-03	2.0694E-01	1.7086E-01	-1.0946E-03
3.0028E-01	1.1648E+00	1.9989E-03	-4.4181E-01	5.1356E-02	-4.1248E-02	1.5804E-03	3.1231E-01	2.2714E-01	-8.1996E-04
3.8350E-01	1.2011E+00	1.2590E-03	-5.2697E-01	1.3454E-01	-3.4908E-02	1.0904E-03	2.9948E-01	3.5264E-01	-4.6172E-04
4.8973E-01	1.2328E+00	3.8506E-04	-7.4284E-01	1.0022E+00	-3.2337E-02	4.5446E-04	3.9496E-01	7.3450E-01	-5.4943E-05
6.2571E-01	1.2440E+00	1.4998E-04	3.7699E-02	-3.5587E-01	-2.9320E-02	1.7997E-04	7.6795E-02	-2.3022E-01	1.0289E-04
7.9887E-01	1.2471E+00	1.2290E-04	-1.0988E-01	-8.4693E-02	-2.6381E-02	1.5764E-04	2.6064E-02	-3.5433E-01	9.3155E-05
1.0202E+00		1.4144E-04	-7.6564E-02	-3.0521E-01	-2.1492E-02	1.5442E-04	4.2673E-02	-3.5942E-01	
1.3187E+00	1.2499E+00	1.0220E-04	-1.9259E-01	-1.3399E-01	-9.8053E-03	1.4422E-04	7.5700E-02	-3.5310E-01	
1.6636E+00	1.2466E+00	1.1546E-04	-1.1547E-01	-4.5113E-01	-3.6342E-03	1.4170E-04	7.0585E-02	-3.0105E-01	

Table F.4-8 Velocity measurements made at S/T = 0.27 with the UV system of the laser anemometer, plane 5

File E527770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.4

density (kilograms per meter cubed) = 1.107328

viscosity (meters squared per second) = 1.651502E-05

Atmospheric pressure (Pascals) = 94240

Velocity of undisturbed free stream (Uref, in m/s) = 27.67217

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.090318E-03

Estimated momentum thickness Reynolds number = 6853.64

Location of traverse; X/T = .75 Z/T = -.7 (Plane 5, S/T = 0.20)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	2.6086E-01				-5.2091E-03	1.5970E-04			
2.8329E-03	2.9650E-01				-7.8353E-03	1.4369E-04			
3.5411E-03	6.9710E-01				-2.1038E-02	6.2394E-04	-7.5321E-01	3.7454E+00	
4.6034E-03	8.2261E-01				-2.6091E-02	7.9137E-04	-2.2995E-01	3.2349E+00	
6.1969E-03	9.9800E-01	5.4720E-03			-4.3583E-02	1.0580E-03	-2.1643E-01	2.2629E+00	
8.4986E-03	1.0402E+00	7.9979E-03	-1.4079E+00	3.3310E+00	-4.2554E-02	1.2588E-03	-9.4936E-02	1.5892E+00	-1.7599E-03
1.0269E-02	1.0619E+00	4.9593E-03	-8.4468E-01	1.7197E+00	-4.6830E-02	1.2772E-03	-1.0206E-01	1.2815E+00	-8.2854E-05
1.2394E-02	1.0697E+00	3.0867E-03	-3.9983E-01	7.6334E-01	-4.6374E-02	1.4304E-03	1.6652E-01	9.4938E-01	-7.8706E-04
1.5935E-02	1.0707E+00	2.8034E-03	-3.0682E-01	4.7943E-01	-4.9088E-02	1.6092E-03	-2.5711E-03	5.0087E-01	-3.1748E-04
2.0184E-02	1.0729E+00	2.6837E-03	1.5676E-02	5.0793E-01	-4.8066E-02	1.8391E-03	4.9017E-02	3.8328E-01	-3.6141E-04
2.6204E-02	1.0747E+00	2.4976E-03	-1.1074E-01	7.6785E-02	-5.4962E-02	2.2415E-03	4.6379E-02	2.5118E-01	-5.4161E-04
3.2932E-02	1.0720E+00	2.5865E-03	-9.6288E-02	1.7497E-02	-5.9570E-02	2.5817E-03	-4.0623E-04	1.9497E-01	-7.0642E-04
4.2493E-02	1.0717E+00	2.6425E-03	-1.1784E-01	-1.0432E-01	-6.2785E-02	3.0058E-03	8.9027E-02	1.7980E-01	-7.6062E-04
5.7011E-02	1.0756E+00	2.6405E-03	-1.5707E-01	-2.3482E-02	-6.8802E-02	3.0801E-03	4.1856E-02	2.6088E-01	-8.9596E-04
6.9051E-02	1.0820E+00				-7.1489E-02	3.0681E-03	-1.3181E-02	1.1359E-01	
9.1006E-02	1.0936E+00	2.6533E-03	-1.4867E-01	-8.2387E-02	-7.5841E-02	2.7616E-03	1.2154E-01	-1.0533E-01	-1.0652E-03
1.1296E-01	1.1070E+00	2.6131E-03	-1.9380E-01	-1.4731E-01	-7.6990E-02	2.8243E-03	1.1008E-01	9.2644E-02	-9.2250E-04
1.4483E-01	1.1234E+00	2.6177E-03	-2.5798E-01	4.3918E-02	-7.6132E-02	2.4106E-03	1.4865E-01	1.7729E-02	-8.2523E-04
1.8449E-01	1.1492E+00	2.2618E-03	-2.7897E-01	-1.5955E-01	-6.8553E-02	2.0813E-03	2.0975E-01	1.2865E-03	-7.7732E-04
2.3513E-01	1.1776E+00	1.8796E-03	-2.8609E-01	-1.4427E-01	-6.4385E-02	1.7292E-03	2.3111E-01	1.9160E-01	-7.8341E-04
3.0135E-01	1.2068E+00	1.4469E-03	-4.2331E-01	-8.4479E-02	-6.0143E-02	1.2350E-03	2.3094E-01	2.3489E-02	-5.4361E-04
3.8350E-01	1.2400E+00	9.5765E-04	-6.0701E-01	2.8472E-02	-5.0372E-02	8.5519E-04	2.9356E-01	2.6779E-01	-2.7050E-04
4.9009E-01	1.2705E+00	2.6577E-04	-6.7161E-01	9.4189E-01	-4.0634E-02	3.5280E-04	3.2611E-01	6.1740E-01	5.1497E-06
6.2571E-01	1.2767E+00	1.1654E-04	-1.3241E-01	-3.3227E-01	-3.4005E-02	1.4367E-04	-3.2042E-02	-2.0688E-01	6.9935E-05
7.9887E-01	1.2831E+00	7.7685E-05	-1.7672E-01	-4.3732E-01	-2.4122E-02	1.3099E-04	-9.9614E-03	-4.3991E-01	6.6300E-05
1.0202E+00	1.2861E+00	1.0900E-04	-1.6840E-01	-4.9154E-01	-1.9342E-02	1.3104E-04	-1.1285E-01	-3.3121E-01	
1.3028E+00	1.2858E+00	1.0061E-04	-2.1927E-01	-3.7127E-01	-9.3547E-03	1.2356E-04	-9.0117E-02	-4.5341E-01	
1.6636E+00	1.2828E+00	9.1295E-05	-1.8838E-01	-3.1618E-01	2.8226E-05	1.0610E-04	-3.5040E-02	-2.5669E-01	

Table F.4-9 Velocity measurements made at S/T = 0.20 with the UV system of the laser anemometer, plane 5

File E529770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.2
 density (kilograms per meter cubed) = 1.09195
 viscosity (meters squared per second) = 1.669527E-05

Atmospheric pressure (Pascals) = 92555
 Velocity of undisturbed free stream (Uref, in m/s) = 27.66974
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090389E-03
 Estimated momentum thickness Reynolds number = 6779.166
 Location of traverse; X/T = .75 Z/T = -.625 (Plane 5, S/T = 0.13)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	3.0387E-01				-7.7424E-03	1.6032E-04	-7.4874E-01	1.6252E+00	
2.4788E-03	3.6261E-01				-9.3473E-03	2.1863E-04	-6.4002E-01	2.0572E+00	
3.5411E-03	6.9979E-01				-1.2770E-02	3.3316E-04			
4.6034E-03	9.8504E-01				-2.5254E-02	6.4454E-04	-9.4118E-02	2.8664E+00	
6.0198E-03	1.0747E+00	1.1191E-02			-3.2137E-02	8.8040E-04	4.4758E-02	2.1036E+00	-2.4623E-03
7.4363E-03	1.1178E+00	8.0303E-03			-3.8227E-02	1.1116E-03	1.7621E-02	1.7886E+00	-1.4259E-03
9.5609E-03	1.1363E+00	4.4669E-03	-9.8759E-01	2.2743E+00	-4.1107E-02	1.3369E-03	1.3418E-01	1.1562E+00	-6.4224E-04
1.2374E-02	1.1426E+00	2.2894E-03	-2.4345E-01	3.5848E-01	-4.5480E-02	1.4992E-03	2.2101E-01	6.1630E-01	-6.0849E-05
1.5935E-02	1.1388E+00	2.1645E-03	-2.5182E-01	2.5119E-01	-5.2606E-02	1.8711E-03	1.4695E-01	4.9841E-01	-2.6748E-04
2.0184E-02	1.1391E+00	2.2079E-03	-1.7877E-01	1.2606E-01	-5.8498E-02	2.2766E-03	1.3345E-01	4.6890E-01	-1.9477E-04
2.5850E-02	1.1399E+00	2.1600E-03	-2.5064E-01	1.2457E-01	-6.3321E-02	2.6020E-03	1.1933E-01	3.3185E-01	-2.8153E-04
3.2932E-02	1.1412E+00	2.1798E-03	-1.4585E-01	8.9532E-02	-6.7127E-02	2.8095E-03	1.1128E-01	1.7941E-01	-4.8084E-04
4.2493E-02	1.1414E+00	2.1903E-03	-2.2029E-01	2.5380E-02	-7.7073E-02	2.9930E-03	-2.7150E-02	1.3126E-01	-5.6890E-04
5.4178E-02	1.1447E+00	2.3631E-03	-2.2148E-01	1.2486E-01	-8.4488E-02	3.0253E-03	1.0891E-01	5.5360E-02	-4.9005E-04
7.0822E-02	1.1489E+00	2.2707E-03	-2.8019E-01	5.9690E-02	-9.1745E-02	2.9712E-03	4.4730E-02	7.8377E-02	-7.4280E-04
8.8173E-02	1.1574E+00	2.1197E-03	-2.4173E-01	8.3718E-03	-9.4204E-02	2.6189E-03	4.7953E-02	2.4843E-02	-6.6821E-04
1.1296E-01	1.1692E+00	2.0499E-03	-2.6564E-01	-6.9791E-02	-9.6808E-02	2.6730E-03	1.2738E-01	1.1746E-01	-6.8251E-04
1.4412E-01	1.1854E+00	1.9940E-03	-2.9763E-01	8.3221E-02	-1.0114E-01	2.4479E-03	1.2529E-01	1.2005E-01	-6.6501E-04
1.8414E-01	1.2047E+00	1.7718E-03	-3.1747E-01	-9.9785E-03	-9.8998E-02	2.0004E-03	1.4423E-01	1.6823E-01	-7.1705E-04
2.3513E-01	1.2292E+00	1.5411E-03	-3.5435E-01	-2.3902E-02	-9.6414E-02	1.6394E-03	2.1468E-01	1.4001E-01	-6.9793E-04
3.0028E-01	1.2557E+00	1.1724E-03	-4.3741E-01	1.0246E-01	-8.6139E-02	1.2290E-03	2.4356E-01	1.7589E-01	-2.9201E-04
3.8350E-01	1.2827E+00	8.1886E-04	-6.5021E-01	6.5113E-01	-8.86E-02	8.7309E-04	1.2411E-01	4.0935E-01	-6.7430E-05
4.8473E-01	1.3055E+00	2.3095E-04	-3.5863E-01	2.7759E-01	-6.4757E-02	3.1284E-04	2.3097E-01	4.3552E-01	8.1167E-05
6.2571E-01	1.3161E+00	1.2184E-04	-2.1890E-01	-2.7780E-01	-4.9748E-02	1.7478E-04	-2.5918E-02	-3.0529E-01	9.3934E-05
7.9887E-01	1.3191E+00	1.2796E-04	-1.5893E-01	-3.6829E-01	-3.3146E-02	1.3110E-04	-1.1594E-02	-3.7619E-01	7.9053E-05
1.0202E+00	1.3224E+00	9.0452E-05	-9.2059E-02	-2.9343E-01	-1.9982E-02	1.2293E-04	5.3802E-02	-1.5110E-01	
1.3106E+00	1.3178E+00	9.8140E-05	-1.6010E-01	-4.8740E-01	-1.3393E-02	9.5527E-05	1.9415E-02	-2.9745E-01	
1.6636E+00	1.3127E+00	1.0135E-04	-2.0683E-01	-4.3415E-01	-1.2400E-02	1.4366E-04	3.2853E-02	-4.0743E-01	

Table F.4-10 Velocity measurements made at S/T = 0.13 with the UV system of the laser anemometer, plane 5

File E530770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 22.1

density (kilograms per meter cubed) = 1.106836

viscosity (meters squared per second) = 1.646641E-05

Atmospheric pressure (Pascals) = 93785

Velocity of undisturbed free stream (Uref, in m/s) = 27.64722

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091056E-03

Estimated momentum thickness Reynolds number = 6868.912

Location of traverse; X/T = .75 Z/T = -.55 (Plane 5, S/T = 0.05)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.7705E-03	3.7247E-01				-1.8505E-03	4.4533E-05			
2.4788E-03	4.1725E-01				-3.1462E-03	7.6982E-05			
3.5411E-03	1.1342E+00				-4.4320E-03	2.3688E-05			
4.6034E-03	1.2429E+00				-1.7737E-02	9.1223E-05			
6.0198E-03	1.2151E+00	2.3957E-03			-3.4145E-02	5.1531E-04			5.5688E-04
7.4363E-03	1.2274E+00	2.5115E-03	-2.0357E-01	1.0044E+00	-4.3081E-02	1.0698E-03	-4.0153E-01	1.6993E+00	1.2416E-04
9.5609E-03	1.2211E+00	2.3320E-03	-3.1265E-01	5.4748E-01	-5.2294E-02	1.6735E-03	-1.4560E-01	1.2452E+00	2.8246E-05
1.2394E-02	1.2164E+00	2.3522E-03	-5.0107E-01	8.8263E-01	-6.9814E-02	2.5056E-03	1.6140E-02	9.6462E-01	4.8640E-04
1.5935E-02	1.2113E+00	2.4238E-03	-7.2097E-01	1.2151E+00	-9.3864E-02	2.7770E-03	-2.5571E-01	4.9144E-01	3.7363E-04
2.0184E-02	1.2099E+00	2.5221E-03	-7.8982E-01	1.3661E+00	-1.1414E-01	3.3680E-03	-2.2053E-01	3.2907E-01	7.2984E-04
2.5850E-02	1.2126E+00	2.3331E-03	-6.7230E-01	1.0163E+00	-1.3179E-01	4.0300E-03	-1.6050E-01	3.7567E-01	7.6480E-04
3.2932E-02	1.2111E+00	2.3828E-03	-7.0345E-01	9.8592E-01	-1.5145E-01	4.2368E-03	-2.6570E-01	1.5018E-02	5.0762E-04
4.2493E-02	1.2081E+00	2.6283E-03	-7.9513E-01	1.1058E+00	-1.7537E-01	4.8089E-03	-1.9522E-01	-3.9245E-02	8.6125E-04
5.4178E-02	1.2175E+00	2.2214E-03	-5.1314E-01	7.0606E-01	-1.8020E-01	4.7963E-03	-2.4161E-01	-4.4056E-02	4.9378E-04
6.9759E-02	1.2195E+00	1.8689E-03	-3.0360E-01	1.2873E-01	-1.8031E-01	4.0137E-03	-2.6008E-01	-1.2461E-01	-5.2980E-05
8.8173E-02	1.2289E+00	1.6937E-03	-3.1653E-01	2.3155E-01	-1.6196E-01	3.2083E-03	-2.0986E-01	5.2601E-02	-6.7512E-05
1.1296E-01	1.2367E+00	1.4263E-03	-2.8214E-01	1.5013E-01	-1.4470E-01	2.7417E-03	-1.5695E-01	4.3292E-01	-3.0434E-04
1.4412E-01	1.2485E+00	1.3404E-03	-3.4230E-01	1.1498E-01	-1.4062E-01	2.2748E-03	-1.0243E-01	2.6395E-01	-3.7308E-04
1.8414E-01	1.2655E+00	1.2013E-03	-3.3009E-01	6.5715E-02	-1.3542E-01	1.9302E-03	1.2494E-02	1.4037E-01	-1.9198E-04
2.3513E-01	1.2833E+00	9.8540E-04	-4.4177E-01	2.5062E-01	-1.3181E-01	1.4998E-03	-8.5495E-02	1.8774E-01	-1.2570E-04
3.0028E-01	1.3029E+00	6.1009E-04	-5.1409E-01	2.2076E-01	-1.1792E-01	8.9133E-04	-1.1531E-01	2.3276E-02	-3.2963E-04
3.8350E-01	1.3259E+00	3.3522E-04	-3.9573E-01	2.9449E-01	-1.0155E-01	5.1327E-04	-1.6115E-01	3.4611E-03	1.6801E-05
4.8973E-01	1.3396E+00	1.4798E-04	4.6237E-02	-2.3428E-01	-7.7078E-02	2.6001E-04	-2.5695E-02	-1.7433E-01	8.0028E-05
6.2571E-01	1.3502E+00	1.1305E-04	2.7882E-02	-5.0757E-01	-5.1054E-02	1.9744E-04	5.8242E-02	-4.5722E-01	8.9923E-05
7.9887E-01	1.3519E+00	8.4851E-05	7.4892E-03	-5.9137E-01	-3.9161E-02	1.5303E-04	1.6900E-01	-5.5967E-01	5.4826E-05
1.0202E+00	1.3538E+00	8.0478E-05	-5.7994E-02	-5.1077E-01	-1.5727E-02	1.6676E-04	-1.7631E-01	-5.1446E-01	
1.3028E+00	1.3544E+00	8.1153E-05	-9.5636E-02	-5.2529E-01	-6.2058E-03	1.4970E-04	-2.8157E-01	-5.6663E-01	
1.6636E+00	1.3484E+00	7.6178E-05	-3.9326E-02	-4.9289E-01	3.2634E-03	1.3794E-04	-2.6513E-01	-4.6119E-01	

Table F.4-11 Velocity measurements made at S/T = 0.05 with the UV system of the laser anemometer, plane 5

File E500770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22
density (kilograms per meter cubed) = 1.114826
viscosity (meters squared per second) = 1.634409E-05
Atmospheric pressure (Pascals) = 94430
Velocity of undisturbed free stream (Uref, in m/s) = 27.72897
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08864E-03
Estimated momentum thickness Reynolds number = 6936.682
Location of traverse; X/T = .75 Z/T = -1.525 (Plane 5, S/T = 1.03)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	-2.0382E-02	2.0400E-03	
2.8329E-03	-2.5234E-02	2.3222E-03	
3.5411E-03	-1.9154E-02	2.4240E-03	
4.2493E-03	-3.8881E-02	2.7233E-03	-3.0582E-03
4.9575E-03	-3.0943E-02	2.8366E-03	1.7429E-03
5.6657E-03	-6.4740E-02	2.8309E-03	
6.7280E-03	-5.9018E-02	3.5559E-03	-3.4596E-03
8.1445E-03	-6.7790E-02	3.9568E-03	-1.5414E-03
9.9150E-03	-7.5321E-02	3.6330E-03	-9.5714E-04
1.2040E-02	-7.5092E-02		
1.2748E-02	-7.4188E-02	3.7516E-03	-9.8466E-04
1.4873E-02	-8.1974E-02	3.4408E-03	-8.3892E-04
1.8059E-02	-8.9311E-02	3.4051E-03	-9.7417E-05
2.2309E-02	-9.4945E-02	3.2689E-03	-5.9193E-04
2.7266E-02	-1.0325E-01	3.0686E-03	-3.4393E-04
3.3286E-02	-1.0605E-01	2.9501E-03	-2.0344E-04
4.1076E-02	-1.0763E-01	2.9019E-03	-1.0545E-04
5.0283E-02	-1.0559E-01	2.7169E-03	2.5030E-05
6.1615E-02	-9.9816E-02	2.6776E-03	-2.4434E-04
7.5425E-02	-9.7216E-02	2.5770E-03	-1.8685E-04
9.2422E-02	-9.1183E-02	2.6091E-03	-2.0891E-04
1.1296E-01	-7.9842E-02	2.6384E-03	-1.7257E-04
1.3846E-01	-7.2613E-02	2.4767E-03	-2.2249E-04
1.6997E-01	-7.0882E-02	2.4800E-03	-1.1316E-04
2.0822E-01	-6.0010E-02	2.2294E-03	-1.1279E-04
2.5531E-01	-5.5674E-02	2.0410E-03	-1.2933E-05
3.1303E-01	-4.9851E-02	1.5995E-03	2.0747E-05
3.8279E-01	-4.3791E-02	1.1365E-03	5.6396E-06
4.7025E-01	-3.9863E-02	6.7897E-04	2.9495E-05
5.7649E-01	-3.4308E-02	1.7463E-04	8.2859E-05
7.0680E-01	-3.7370E-02		
8.6650E-01	-4.3349E-02	1.2790E-04	
1.0627E+00	-4.0880E-02	7.1045E-05	
1.4168E+00	-4.1974E-02	2.9678E-05	
1.7709E+00	-4.0855E-02		

Table F.4-12 Velocity measurements made at S/T = 1.03 with the UW system of the laser anemometer, plane 5

File E501770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.1
 density (kilograms per meter cubed) = 1.112147
 viscosity (meters squared per second) = 1.638778E-05
 Atmospheric pressure (Pascals) = 94235
 Velocity of undisturbed free stream (Uref, in m/s) = 27.76323
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087631E-03
 Estimated momentum thickness Reynolds number = 6925.03
 Location of traverse; X/T = .75 Z/T = -1.325 (Plane 5, S/T = 0.83)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-6.5417E-03	1.7825E-03	
2.4788E-03	-2.7914E-02	2.6668E-03	-2.2691E-03
3.8952E-03	-4.6073E-02	4.6380E-03	-2.1986E-03
5.3116E-03	-5.6820E-02	4.7838E-03	-2.7065E-03
7.4363E-03	-8.0026E-02	3.7668E-03	-2.7974E-03
9.9150E-03	-9.4934E-02	3.8457E-03	-1.2943E-03
1.2394E-02	-1.0738E-01	3.4741E-03	-1.1930E-03
1.6643E-02	-1.1818E-01	3.5122E-03	-6.1202E-04
2.2309E-02	-1.2666E-01	3.5969E-03	5.6256E-04
2.9391E-02	-1.3695E-01	3.1143E-03	-6.7206E-05
3.8952E-02	-1.4063E-01	3.1949E-03	3.6166E-04
5.0637E-02	-1.3392E-01	3.1619E-03	4.9756E-04
6.5510E-02	-1.2790E-01	2.9162E-03	1.6318E-04
8.4632E-02	-9.8424E-02	3.3573E-03	2.8547E-04
1.0942E-01	-9.2466E-02	2.9541E-03	5.4429E-05
1.4058E-01	-8.8674E-02	2.5367E-03	-9.7746E-05
1.8059E-01	-7.0348E-02	2.5612E-03	-3.6676E-05
2.3159E-01	-5.7572E-02	2.1784E-03	-4.8232E-05
2.9603E-01	-6.0674E-02	1.7618E-03	1.8855E-05
3.4455E-01	-4.6432E-02	1.5934E-03	1.6949E-04
4.8619E-01	-3.6538E-02	6.2303E-04	1.9989E-04
6.2217E-01	-3.7727E-02		
7.9533E-01	-4.3127E-02	6.8467E-06	
1.0166E+00	-4.5400E-02	1.8596E-04	1.1243E-04
1.2992E+00	-4.7571E-02	2.9879E-04	1.7586E-04
1.6601E+00	-4.7529E-02	2.8086E-04	

Table F.4-13 Velocity measurements made at S/T = 0.83 with the UW system of the laser anemometer, plane 5

File E502770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.1

density (kilograms per meter cubed) = 1.117222

viscosity (meters squared per second) = 1.631334E-05

Atmospheric pressure (Pascals) = 94665

Velocity of undisturbed free stream (Uref, in m/s) = 27.77486

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087289E-03

Estimated momentum thickness Reynolds number = 6958.961

Location of traverse; X/T = .75 Z/T = -1.175 (Plane 5, S/T = 0.67)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.8329E-03	-3.6695E-02	1.1259E-03	
3.1870E-03	-5.5419E-02	1.8250E-03	
4.2493E-03	-6.2509E-02	4.2404E-03	-5.2452E-03
4.9575E-03	-6.4899E-02	4.3863E-03	-4.8323E-03
5.6657E-03	-6.7850E-02	4.4218E-03	-6.1194E-03
6.7280E-03	-9.1954E-02	4.7853E-03	-3.9435E-03
8.4986E-03	-1.1018E-01	4.9052E-03	-3.2260E-03
1.0423E-02	-1.3479E-01	5.0466E-03	-2.2795E-03
1.3456E-02	-1.4821E-01	5.0047E-03	-1.2779E-03
1.6997E-02	-1.6310E-01	4.8001E-03	-9.5020E-04
2.1246E-02	-1.7566E-01	4.6753E-03	-6.4992E-04
2.7975E-02	-1.8851E-01	4.4616E-03	-3.6386E-04
3.3994E-02	-1.9207E-01	4.3832E-03	-2.2347E-05
4.3555E-02	-1.8869E-01	4.4710E-03	1.8795E-04
5.5241E-02	-1.7394E-01	4.4248E-03	7.5867E-04
7.0113E-02	-1.5845E-01	4.0322E-03	6.7011E-04
8.9235E-02	-1.3554E-01	3.5542E-03	1.1946E-04
1.1402E-01	-1.1490E-01	3.0826E-03	-1.8106E-04
1.4518E-01	-9.5667E-02	2.7790E-03	-1.5318E-04
1.8520E-01	-7.8999E-02	2.4722E-03	-9.4646E-05
2.3619E-01	-6.4647E-02	2.1311E-03	-8.2944E-05
3.0135E-01	-5.8962E-02	1.7201E-03	1.7663E-04
3.8456E-01	-4.7682E-02	1.0629E-03	1.8911E-04
4.9079E-01	-4.2890E-02	4.2167E-04	1.7387E-04
6.2819E-01	-4.0505E-02	2.4135E-04	2.0535E-04
7.9993E-01	-3.8266E-02	2.2361E-04	
1.0212E+00	-4.6483E-02	1.8568E-04	
1.3038E+00	-4.8485E-02	6.2468E-05	
1.6647E+00	-4.8958E-02	8.1735E-05	

Table F.4-14 Velocity measurements made at S/T = 0.67 with the UW system of the laser anemometer, plane 5

File E503770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22.1

density (kilograms per meter cubed) = 1.111557

viscosity (meters squared per second) = 1.639648E-05

Atmospheric pressure (Pascals) = 94185

Velocity of undisturbed free stream (Uref, in m/s) = 27.75275

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08794E-03

Estimated momentum thickness Reynolds number = 6919.264

Location of traverse; X/T = .75 Z/T = -1.075 (Plane 5, S/T = 0.58)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.5411E-03	-6.5364E-02	4.9765E-03	-1.7711E-04
4.2493E-03	-9.4538E-02	8.5423E-03	
4.9575E-03	-9.1165E-02	9.7209E-03	-3.6686E-03
6.0198E-03	-1.0408E-01	8.8703E-03	-2.8534E-03
7.0822E-03	-1.0497E-01	8.6883E-03	-3.4799E-03
8.8527E-03	-1.4110E-01	9.5433E-03	-2.2148E-03
1.0623E-02	-1.5288E-01	1.0612E-02	-1.1646E-03
1.3456E-02	-1.5545E-01	1.1634E-02	3.5634E-03
1.6997E-02	-1.8080E-01	9.9641E-03	1.0154E-03
2.1246E-02	-2.0543E-01	8.7016E-03	6.1723E-04
2.6912E-02	-2.0852E-01	8.5017E-03	1.0686E-03
3.3994E-02	-2.1643E-01	7.9932E-03	1.2596E-03
4.3555E-02	-2.1134E-01	8.1179E-03	1.0291E-03
5.5241E-02	-2.0099E-01	7.8293E-03	9.0870E-04
7.0113E-02	-1.7906E-01	8.0973E-03	1.1168E-03
8.9235E-02	-1.5600E-01	7.6022E-03	1.3310E-03
1.1402E-01	-1.2713E-01	5.7933E-03	2.2277E-04
1.4518E-01	-9.8002E-02	4.4196E-03	2.0038E-04
1.8591E-01	-8.2951E-02	3.6178E-03	2.5766E-04
2.3690E-01	-5.7654E-02	2.1100E-03	-6.8223E-04
3.0135E-01	-4.9618E-02	1.7152E-03	1.6344E-04
3.8456E-01	-4.3845E-02	1.1085E-03	2.2080E-04
4.9079E-01	-4.0490E-02	4.4765E-04	1.9653E-04
6.2677E-01	-4.3273E-02	6.9026E-05	2.1944E-05
7.9993E-01	-5.3259E-02	1.0816E-04	
1.0212E+00	-6.2679E-02	4.9101E-05	
1.3038E+00	-6.4309E-02		
1.6647E+00	-5.9960E-02	6.2812E-05	

Table F.4-15 Velocity measurements made at S/T = 0.58 with the UW system of the laser anemometer, plane 5

File E511770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.109986

viscosity (meters squared per second) = 1.641537E-05

Atmospheric pressure (Pascals) = 94020

Velocity of undisturbed free stream (Uref, in m/s) = 27.75812

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087782E-03

Estimated momentum thickness Reynolds number = 6912.372

Location of traverse; X/T = .75 Z/T = -1 (Plane 5, S/T = 0.50)

Y/T	W/Uref	w2/Uref2	uw/Uref2
4.2493E-03	-9.2441E-02	8.6384E-03	-2.2891E-03
4.7805E-03	-1.1134E-01	9.1183E-03	-4.1208E-03
5.3116E-03	-1.2792E-01	1.0994E-02	-5.0171E-03
6.3739E-03	-1.4965E-01	1.2116E-02	-3.7836E-03
7.4363E-03	-1.5272E-01	1.3064E-02	-4.6773E-03
9.2068E-03	-1.7531E-01	1.3743E-02	-3.1908E-03
1.1863E-02	-2.0407E-01	1.5594E-02	-1.2732E-03
1.4164E-02	-2.1456E-01	1.5664E-02	-7.5410E-04
1.7705E-02	-2.3502E-01	1.6142E-02	4.1160E-04
2.1955E-02	-2.4739E-01	1.6361E-02	1.1054E-03
2.7975E-02	-2.6354E-01	1.6818E-02	1.7393E-03
3.4703E-02	-2.7433E-01	1.6458E-02	2.3376E-03
4.6034E-02	-2.8260E-01	1.7367E-02	2.8837E-03
5.5949E-02	-2.6230E-01	1.6895E-02	3.0964E-03
7.0822E-02	-2.4794E-01	1.5774E-02	2.7109E-03
8.9943E-02	-1.9562E-01	1.3407E-02	1.5004E-03
1.1473E-01	-1.4312E-01	1.0821E-02	9.8942E-05
1.4625E-01	-9.0494E-02	7.3543E-03	-6.7349E-04
1.8591E-01	-6.1637E-02	4.5114E-03	-9.9226E-05
2.369	-5.0574E-02	2.3399E-03	-6.8902E-04
3.0205E-01	-4.7098E-02	1.8243E-03	4.7315E-06
3.8527E-01	-3.9554E-02	1.1021E-03	-2.4613E-06
4.9150E-01	-4.6641E-02	2.9569E-04	2.1337E-04
6.2748E-01	-5.0791E-02		
8.0064E-01	-5.6637E-02		
1.0220E+00	-6.8460E-02		
1.3045E+00	-7.0969E-02	1.8223E-05	
1.6654E+00	-6.9154E-02	4.6055E-05	

Table F.4-16 Velocity measurements made at S/T = 0.50 with the UW system of the laser anemometer, plane 5

File E505770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.112878

viscosity (meters squared per second) = 1.63727E-05

Atmospheric pressure (Pascals) = 94265

Velocity of undisturbed free stream (Uref, in m/s) = 27.75357

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087915E-03

Estimated momentum thickness Reynolds number = 6929.475

Location of traverse; X/T = .75 Z/T = -.925 (Plane 5, S/T = 0.43)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	-1.3426E-01	9.4720E-03	
2.8329E-03	-2.0923E-01	1.4277E-02	
3.5411E-03	-1.7726E-01	2.3162E-02	-9.9490E-03
4.6034E-03	-1.9436E-01	2.5542E-02	-6.9715E-03
6.3739E-03	-2.4466E-01	3.0083E-02	-5.8289E-03
7.4363E-03	-2.5360E-01	3.1255E-02	-5.7341E-03
9.5609E-03	-2.9245E-01	3.3916E-02	-5.3562E-03
1.2394E-02	-3.0839E-01	3.4147E-02	-3.1465E-03
1.5935E-02	-3.3276E-01	3.1097E-02	-8.2796E-04
2.0184E-02	-3.5099E-01	2.8114E-02	2.0258E-04
2.5850E-02	-3.6304E-01	2.3911E-02	1.5194E-03
3.3286E-02	-3.6282E-01	2.0023E-02	1.5461E-03
4.2847E-02	-3.5142E-01	1.7683E-02	1.7575E-03
5.4887E-02	-3.2728E-01	1.6404E-02	1.5939E-03
6.9759E-02	-2.6596E-01	1.7224E-02	1.4372E-03
8.8173E-02	-1.8027E-01	1.6845E-02	8.5094E-04
1.1296E-01	-8.5695E-02	1.3183E-02	-1.7934E-03
1.4412E-01	-4.5404E-02	8.3749E-03	-1.0931E-03
1.8449E-01	-3.3982E-02	4.4494E-03	-1.5129E-04
2.3513E-01	-3.6120E-02	3.2053E-03	2.8775E-04
3.0028E-01	-3.5126E-02	1.5820E-03	-2.6724E-05
3.8350E-01	-3.5881E-02	9.2266E-04	9.1374E-05
4.8973E-01	-3.5609E-02	5.3903E-05	
6.2571E-01	-4.7519E-02		
7.9887E-01	-6.0121E-02		
1.0202E+00	-6.6271E-02		
1.3095E+00	-7.0375E-02		
1.6636E+00	-7.3315E-02		

Table F.4-17 Velocity measurements made at S/T = 0.43 with the UW system of the laser anemometer, plane 5

File E506770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.5

density (kilograms per meter cubed) = 1.114708

viscosity (meters squared per second) = 1.632442E-05

Atmospheric pressure (Pascals) = 94260

Velocity of undisturbed free stream (Uref, in m/s) = 27.81664

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08606E-03

Estimated momentum thickness Reynolds number = 6962.603

Location of traverse; X/T = -.75 Z/T = -.85 (Plane 5, S/T = 0.35)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.4788E-03	-1.7579E-01	1.5977E-02	-3.0112E-03
3.1870E-03	-2.0863E-01	1.7342E-02	-1.5178E-02
4.6034E-03	-2.9785E-01	2.1304E-02	-1.6175E-02
5.6657E-03	-3.0341E-01	2.2291E-02	-1.6512E-02
7.0822E-03	-3.7352E-01	2.3238E-02	-1.1187E-02
9.7380E-03	-4.1037E-01	2.1777E-02	-1.0856E-02
1.2394E-02	-4.2613E-01	1.9395E-02	-7.0069E-03
1.5758E-02	-4.3070E-01	1.6545E-02	-3.9437E-03
2.0184E-02	-4.2362E-01	1.3311E-02	-1.2231E-03
2.5850E-02	-4.1257E-01	1.0831E-02	-1.1021E-03
3.2578E-02	-3.9173E-01	1.0513E-02	6.8426E-05
4.2139E-02	-3.5707E-01	1.0185E-02	1.0766E-04
5.3824E-02	-3.2026E-01	1.1546E-02	7.6319E-05
6.8697E-02	-2.5122E-01	1.3313E-02	5.6066E-04
8.7819E-02	-1.5099E-01	1.2816E-02	-8.4055E-04
1.1261E-01	-6.8744E-02	1.0306E-02	-1.8907E-03
1.4377E-01	-4.2927E-02	8.1735E-03	-4.1352E-04
1.9299E-01	-2.9485E-02	3.5623E-03	-3.3883E-06
2.3477E-01	-3.3739E-02	3.1199E-03	5.9597E-04
3.0028E-01	-2.9090E-02	1.4768E-03	2.3559E-05
3.8314E-01	-3.1105E-02	1.0437E-03	4.6289E-05
4.9504E-01	-3.4131E-02	1.2570E-04	
6.2535E-01	-4.6173E-02		
7.9851E-01	-6.0038E-02	4.3604E-06	
1.0198E+00	-6.5088E-02		
1.3024E+00	-6.9971E-02		
1.6632E+00	-7.1333E-02		

Table F.4-18 Velocity measurements made at S/T = 0.35 with the UW system of the laser anemometer, plane 5

File E507770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.118191

viscosity (meters squared per second) = 1.629492E-05

Atmospheric pressure (Pascals) = 94715

Velocity of undisturbed free stream (Uref, in m/s) = 27.80503

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.086401E-03

Estimated momentum thickness Reynolds number = 6972.881

Location of traverse; X/T = .75 Z/T = -.775 (Plane 5, S/T = 0.27)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.0099E-03	-2.1249E-01	1.1666E-02	-1.9196E-02
3.7181E-03	-2.4171E-01	1.1290E-02	
4.6034E-03	-3.0650E-01	1.0389E-02	-7.5476E-03
5.4887E-03	-3.5010E-01	1.1193E-02	-6.9450E-03
6.5510E-03	-3.7868E-01	1.1321E-02	-5.5304E-03
8.3215E-03	-4.0821E-01	1.0923E-02	-2.8568E-03
1.0446E-02	-4.2147E-01	1.0245E-02	-2.0658E-03
1.3279E-02	-4.1787E-01	8.9034E-03	-9.0629E-04
1.6820E-02	-4.0931E-01	8.2153E-03	-3.5287E-04
2.1069E-02	-3.8802E-01	7.6072E-03	-2.8022E-04
2.7089E-02	-3.6676E-01	7.6898E-03	7.0048E-05
3.4525E-02	-3.2179E-01	6.6624E-03	-1.4122E-04
4.3378E-02	-2.9704E-01	7.0665E-03	3.7265E-04
5.5064E-02	-2.5519E-01	6.6479E-03	1.6016E-04
6.9936E-02	-2.0365E-01	6.2106E-03	1.8390E-04
8.9058E-02	-1.5246E-01	6.3495E-03	-3.3157E-05
1.1385E-01	-1.0327E-01	5.9081E-03	2.1362E-04
1.4501E-01	-6.5471E-02	4.0929E-03	-2.5088E-04
1.8502E-01	-5.2607E-02	3.6816E-03	2.9174E-04
2.3601E-01	-4.3929E-02	2.0321E-03	-1.1830E-04
3.0152E-01	-4.3414E-02	1.6509E-03	1.0347E-04
3.8474E-01	-4.9278E-02	1.0490E-03	1.9612E-04
4.9062E-01	-4.9938E-02	4.8528E-04	2.6134E-04
6.2659E-01	-6.1038E-02	1.7179E-04	1.7436E-04
7.9975E-01	-7.4488E-02	8.0917E-05	8.6500E-05
1.0211E+00	-8.0305E-02	1.3697E-04	
1.3026E+00	-8.8163E-02	9.4981E-05	
1.6645E+00	-8.8312E-02	1.4638E-04	

Table F.4-19 Velocity measurements made at S/T = 0.27 with the UW system of the laser anemometer, plane 5

File E508770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.118899

viscosity (meters squared per second) = 1.62846E-05

Atmospheric pressure (Pascals) = 94775

Velocity of undisturbed free stream (Uref, in m/s) = 27.72972

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.088618E-03

Estimated momentum thickness Reynolds number = 6962.176

Location of traverse; X/T = .75 Z/T = -.7 (Plane 5 , S/T = 0.20)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.1870E-03	-1.7545E-01	4.3073E-03	-2.9346E-03
3.8952E-03	-2.4270E-01	6.9936E-03	-3.3668E-03
4.7805E-03	-2.6104E-01	1.0899E-02	-7.3018E-03
5.6657E-03	-3.0106E-01	1.0103E-02	-6.1539E-03
6.7280E-03	-3.4247E-01	1.0221E-02	-3.1207E-03
8.1445E-03	-3.6555E-01	1.0806E-02	-2.0979E-03
1.0269E-02	-3.7838E-01	9.8162E-03	-1.5756E-03
1.3102E-02	-3.7457E-01	8.8011E-03	-4.9423E-04
1.6997E-02	-3.5528E-01	7.6763E-03	1.1808E-05
2.0892E-02	-3.3572E-01	6.1353E-03	-9.5496E-04
2.6558E-02	-3.0948E-01	5.3044E-03	-8.2573E-04
3.3640E-02	-2.7543E-01	4.2417E-03	-1.1723E-03
4.3201E-02	-2.3777E-01	3.6955E-03	-1.2545E-03
5.4887E-02	-2.1139E-01	3.3254E-03	-1.2574E-03
6.9759E-02	-1.7719E-01	3.0643E-03	-1.3813E-03
8.8881E-02	-1.4744E-01	2.9408E-03	-1.1313E-03
1.1367E-01	-1.1591E-01	2.7004E-03	-1.1178E-03
1.4483E-01	-8.8890E-02	2.4720E-03	-1.0260E-03
1.8484E-01	-6.6070E-02	2.1750E-03	-7.8481E-04
2.3584E-01	-5.2506E-02	1.8457E-03	-1.1586E-04
3.0099E-01	-4.4049E-02	1.3112E-03	8.1287E-06
3.8421E-01	-4.2402E-02	6.7147E-04	1.4419E-05
4.9044E-01	-5.4026E-02	2.8937E-04	1.2254E-04
6.2642E-01	-5.7998E-02		
8.0984E-01	-7.5933E-02	4.4470E-06	7.4595E-06
1.0209E+00	-8.5297E-02		
1.3389E+00	-8.7884E-02		
1.6643E+00	-8.5460E-02		

Table F.4-20 Velocity measurements made at S/T = 0.20 with the UW system of the laser anemometer, plane 5

File E509770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.9

density (kilograms per meter cubed) = 1.115618

viscosity (meters squared per second) = 1.632823E-05

Atmospheric pressure (Pascals) = 94465

Velocity of undisturbed free stream (Uref, in m/s) = 27.76442

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087596E-03

Estimated momentum thickness Reynolds number = 6950.524

Location of traverse; X/T = .75 Z/T = -.625 (Plane 5, S/T = 0.13)

Y/T	W/Uref	w2/Uref2	uw/Uref2
3.1870E-03	-1.7523E-01	1.0086E-02	-8.1606E-03
3.8952E-03	-2.2224E-01	1.0972E-02	-9.4702E-03
4.6034E-03	-2.2653E-01	1.1287E-02	-1.3409E-02
5.6657E-03	-2.7687E-01	1.0397E-02	-8.6291E-03
6.7280E-03	-3.0239E-01	1.0065E-02	-5.1264E-03
8.4986E-03	-3.2336E-01	8.9156E-03	-1.5322E-03
1.0977E-02	-3.2014E-01	8.1187E-03	-3.1403E-04
1.3456E-02	-3.0462E-01	6.7623E-03	-2.1093E-04
1.6997E-02	-2.8928E-01	6.0757E-03	7.4562E-04
2.1246E-02	-2.6594E-01	4.2056E-03	-3.3400E-04
2.6912E-02	-2.3589E-01	3.4537E-03	-6.8005E-04
3.3994E-02	-2.1242E-01	2.9496E-03	-5.5721E-04
4.3555E-02	-1.8498E-01	2.6795E-03	-7.3352E-04
5.5241E-02	-1.6259E-01	2.4958E-03	-8.1256E-04
7.0113E-02	-1.4217E-01	2.2180E-03	-8.3570E-04
8.9235E-02	-1.2140E-01	2.3243E-03	-4.4847E-04
1.1402E-01	-9.9789E-02	1.9849E-03	-4.5998E-04
1.4518E-01	-7.9412E-02	1.9708E-03	-3.3701E-04
1.8520E-01	-5.9436E-02	1.7633E-03	-1.8702E-04
2.3725E-01	-4.5924E-02	1.3387E-03	-1.8283E-05
3.0135E-01	-3.8516E-02	9.7862E-04	8.5131E-06
3.8456E-01	-4.3957E-02	6.2308E-04	1.2017E-04
4.9079E-01	-5.2645E-02	2.7225E-04	1.5484E-04
6.2783E-01	-6.3657E-02		
7.9993E-01	-7.7846E-02		
1.0212E+00	-8.1747E-02		
1.3038E+00	-8.3836E-02		
1.6647E+00	-8.3211E-02		

Table F.4-21 Velocity measurements made at S/T = 0.13 with the UW system of the laser anemometer, plane 5

File E510770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 21.5

density (kilograms per meter cubed) = 1.118374

viscosity (meters squared per second) = 1.627091E-05

Atmospheric pressure (Pascals) = 94570

Velocity of undisturbed free stream (Uref, in m/s) = 27.73585

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.088438E-03

Estimated momentum thickness Reynolds number = 6969.267

Location of traverse; X/T = .75 Z/T = -.55 (Plane 5, S/T = 0.05)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.6558E-03	-1.1686E-02	3.6406E-03	
3.3640E-03	-1.7007E-02	3.7264E-03	-9.5310E-03
4.4263E-03	-5.9428E-02	4.2263E-03	
5.1346E-03	-7.1530E-02	4.2901E-03	-2.1297E-04
6.1969E-03	-7.2792E-02	4.5129E-03	2.0325E-04
8.3215E-03	-7.1885E-02	4.2530E-03	3.5285E-04
1.1154E-02	-6.8298E-02	3.8339E-03	1.0830E-04
1.2925E-02	-6.1442E-02	3.8338E-03	1.1182E-04
1.6820E-02	-5.8179E-02	3.7158E-03	1.3255E-04
2.0715E-02	-6.2855E-02	3.7406E-03	2.4471E-04
2.6381E-02	-5.1215E-02	4.0955E-03	1.8380E-04
3.3463E-02	-6.6707E-02	4.3097E-03	7.0735E-04
4.3024E-02	-9.1864E-02	4.6307E-03	1.1202E-03
5.4710E-02	-1.0946E-01	5.0095E-03	1.5259E-03
6.9582E-02	-1.2322E-01	4.1475E-03	1.0065E-03
8.8704E-02	-1.0936E-01	2.8238E-03	1.9402E-04
1.1349E-01	-8.4587E-02	2.3597E-03	5.5181E-04
1.4465E-01	-6.0241E-02	1.1820E-03	-1.7035E-04
1.8467E-01	-4.4056E-02	9.0771E-04	-2.1499E-04
2.3566E-01	-3.0349E-02	8.0115E-04	-3.6996E-05
3.0081E-01	-2.6051E-02	5.7280E-04	5.3456E-05
3.8403E-01	-3.0202E-02	4.2344E-04	1.3072E-04
4.9026E-01	-3.6038E-02	3.0258E-04	
6.2624E-01	-4.1195E-02		
7.9940E-01	-4.7491E-02		
1.0207E+00	-5.0678E-02		
1.3033E+00	-5.2738E-02		
1.6641E+00	-5.1464E-02		

Table F.4-22 Velocity measurements made at S/T = 0.05 with the UW system of the laser anemometer, plane 5

File E532770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.096322

viscosity (meters squared per second) = 1.675883E-05

Atmospheric pressure (Pascals) = 93870

Velocity of undisturbed free stream (Uref, in m/s) = 27.61288

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092073E-03

Estimated momentum thickness Reynolds number = 6742.35

Location of traverse; X/T = .75 Z/T = -1.525 (Plane 5, S/T = 1.03)

Y/T	vw/Uref2
2.4788E-03	3.3933E-04
3.5411E-03	3.9136E-04
4.6034E-03	2.0460E-04
6.0198E-03	3.2026E-04
7.4363E-03	1.1857E-04
9.5609E-03	2.5853E-04
1.2394E-02	7.5040E-05
1.5935E-02	4.3156E-05
2.0184E-02	1.1504E-05
2.5850E-02	-5.4448E-05
3.2932E-02	-1.5022E-04
4.2433E-02	-2.8064E-04
5.4178E-02	-3.4042E-04
6.9759E-02	-1.9733E-04
8.9943E-02	-2.2394E-04
1.1438E-01	-3.3405E-04
1.4695E-01	-1.9274E-04
1.8414E-01	-2.2432E-04
2.3513E-01	-1.3146E-04
3.0099E-01	-1.1230E-04
3.8385E-01	2.4944E-05
4.8973E-01	1.0762E-04
6.2571E-01	1.8550E-04
7.9887E-01	1.0834E-04

Table F.4-23 Velocity measurements made at S/T = 1.03 with the VW system of the laser anemometer, plane 5

File E533770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.096556

viscosity (meters squared per second) = 1.675526E-05

Atmospheric pressure (Pascals) = 93890

Velocity of undisturbed free stream (Uref, in m/s) = 27.62487

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091717E-03

Estimated momentum thickness Reynolds number = 6746.129

Location of traverse; X/T = .75 Z/T = -1.325 (Plane 5, S/T = 0.83)

Y/T	vm/Uref2
3.8952E-03	3.6163E-04
4.6034E-03	-3.1233E-04
6.3739E-03	-9.9483E-04
7.7904E-03	4.1091E-04
9.5609E-03	1.2081E-04
1.2748E-02	4.0713E-05
1.5935E-02	2.3348E-04
2.0184E-02	-7.8356E-05
2.5850E-02	-1.0804E-04
3.3286E-02	6.2799E-05
4.2493E-02	-6.1000E-04
5.4887E-02	-2.3728E-04
6.9051E-02	-5.4244E-04
9.2068E-02	-5.1576E-04
1.1296E-01	-5.3666E-05
1.4412E-01	-3.1204E-04
1.8449E-01	-2.9363E-04
2.3513E-01	-2.6432E-04
3.0241E-01	-1.6683E-04
3.8350E-01	1.2744E-05
4.9044E-01	4.2193E-05
6.2571E-01	1.0467E-04
7.9887E-01	1.2433E-04

Table F.4-24 Velocity measurements made at S/T = 0.83 with the VW system of the laser anemometer, plane 5

File E534770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.4

density (kilograms per meter cubed) = 1.097339

viscosity (meters squared per second) = 1.675197E-05

Atmospheric pressure (Pascals) = 94020

Velocity of undisturbed free stream (Uref, in m/s) = 27.63375

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091454E-03

Estimated momentum thickness Reynolds number = 6749.191

Location of traverse; X/T = .75 Z/T = -1.175 (Plane 5, S/T = 0.67)

Y/T	vw/Uref2
3.8952E-03	5.1832E-04
4.9575E-03	3.4073E-04
6.3739E-03	3.5613E-04
8.4986E-03	6.8129E-05
1.0269E-02	5.9315E-06
1.3102E-02	-7.1534E-05
1.6643E-02	-1.4449E-04
2.0892E-02	1.4381E-04
2.6558E-02	-3.6220E-04
3.3640E-02	-6.2208E-04
4.3201E-02	-6.7239E-04
5.7011E-02	-8.7682E-04
6.9759E-02	-9.2329E-04
8.9235E-02	-7.9137E-04
1.1438E-01	-3.9290E-04
1.4483E-01	-3.0447E-04
1.8484E-01	-2.3701E-04
2.3654E-01	-3.7101E-04
3.0099E-01	-1.6757E-04
3.8421E-01	-2.3285E-06
4.9044E-01	3.4184E-05
6.2854E-01	1.5205E-04
7.9958E-01	8.2825E-05

Table F.4-25 Velocity measurements made at S/T = 0.67 with the VW system of the laser anemometer, plane 5

File E535770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 28

density (kilograms per meter cubed) = 1.08948

viscosity (meters squared per second) = 1.698577E-05

Atmospheric pressure (Pascals) = 94160

Velocity of undisturbed free stream (Uref, in m/s) = 27.6995

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08951E-03

Estimated momentum thickness Reynolds number = 6668.956

Location of traverse; X/T = .75 Z/T = -1.075 (Plane 5, S/T = 0.58)

Y/T	vw/Uref2
5.3116E-03	2.4100E-06
6.0198E-03	-7.9366E-05
6.7280E-03	-1.8265E-04
7.7904E-03	-2.5109E-04
9.5609E-03	1.5847E-04
1.1686E-02	2.2326E-04
1.4518E-02	-2.1185E-04
1.8059E-02	-6.3236E-04
2.2309E-02	-5.0737E-04
2.7975E-02	-1.0574E-03
3.5057E-02	-1.2606E-03
4.4618E-02	-1.9651E-03
5.6303E-02	-3.7249E-03
7.1530E-02	-3.2930E-03
9.0297E-02	-2.9359E-03
1.1508E-01	-2.9467E-03
1.4625E-01	-1.7964E-03
1.8839E-01	-3.3593E-04
2.3867E-01	-1.8524E-04
3.0276E-01	-2.8806E-04
3.8562E-01	-1.0512E-04
4.9186E-01	-4.9213E-05
6.2783E-01	1.1611E-04
8.0099E-01	1.1918E-04

Table F.4-26 Velocity measurements made at S/T = 0.58 with the VW system of the laser anemometer, plane 5

File E536770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 28

density (kilograms per meter cubed) = 1.086992

viscosity (meters squared per second) = 1.702464E-05

Atmospheric pressure (Pascals) = 93945

Velocity of undisturbed free stream (Uref, in m/s) = 27.63204

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091505E-03

Estimated momentum thickness Reynolds number = 6640.762

Location of traverse; X/T = .75 Z/T = -1 (Plane 5, S/T = 0.50)

Y/T	vw/Uref2
3.8952E-03	-7.1129E-04
4.9575E-03	-1.5253E-03
6.3739E-03	-2.4275E-03
7.7904E-03	-2.5922E-04
9.5609E-03	-1.4198E-03
1.1331E-02	-2.1035E-03
1.4164E-02	-2.6692E-03
1.7705E-02	-4.2436E-03
2.1955E-02	-6.2072E-03
2.7620E-02	-7.3628E-03
3.4703E-02	-6.7721E-03
4.5324E-02	-7.5019E-03
5.5949E-02	-9.8978E-03
7.2946E-02	-9.3267E-03
8.9943E-02	-5.9312E-03
1.1473E-01	-4.7904E-03
1.4589E-01	-1.1198E-03
1.8591E-01	-3.7214E-04
2.3796E-01	-2.9493E-04
3.0205E-01	-2.3085E-04
3.8669E-01	-1.1394E-04
4.9150E-01	-1.1297E-05
6.2748E-01	8.2448E-05
8.0064E-01	1.0443E-04

Table F.4-27 Velocity measurements made at S/T = 0.50 with the VW system of the laser anemometer, plane 5

File E537770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 27
density (kilograms per meter cubed) = 1.09108
viscosity (meters squared per second) = 1.691753E-05
Atmospheric pressure (Pascals) = 93985
Velocity of undisturbed free stream (Uref, in m/s) = 27.6572
Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09076E-03
Estimated momentum thickness Reynolds number = 6687.677
Location of traverse; X/T = .75 Z/T = -.925 (Plane 5, S/T = 0.43)

Y/T	vw/Uref
3.3640E-03	1.0428E-03
4.0722E-03	-1.4724E-04
5.1346E-03	-3.2456E-04
6.1969E-03	-9.0371E-04
7.2592E-03	-9.2043E-04
9.0297E-03	-1.7097E-03
1.1154E-02	-1.2423E-03
1.4341E-02	-2.1754E-03
1.7528E-02	-3.4175E-03
2.1778E-02	-4.0960E-03
2.7443E-02	-4.3026E-03
3.4525E-02	-5.5024E-03
4.4086E-02	-6.2544E-03
5.5772E-02	-6.3113E-03
7.1707E-02	-7.5376E-03
8.9766E-02	-7.5013E-03
1.1491E-01	-2.6703E-03
1.4678E-01	-1.6520E-03
1.8573E-01	-6.8784E-04
2.3708E-01	-2.2720E-04
3.0188E-01	-7.0324E-05
3.8509E-01	-6.2451E-06
4.9132E-01	-3.8144E-05
6.2872E-01	1.0804E-04
8.0046E-01	1.1045E-04

Table F.4-28 Velocity measurements made at S/T = 0.43 with the VW system of the laser anemometer, plane 5

File E538770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 27

density (kilograms per meter cubed) = 1.086726

viscosity (meters squared per second) = 1.69853E-05

Atmospheric pressure (Pascals) = 93610

Velocity of undisturbed free stream (Uref, in m/s) = 27.65559

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.090808E-03

Estimated momentum thickness Reynolds number = 6660.682

Location of traverse; $X/T = .75$ $Z/T = -.85$ (Plane 5, $S/T = 0.35$)

Y/T	vw/Uref2
5.3116E-03	1.6932E-03
6.7280E-03	4.8935E-04
8.4986E-03	3.7860E-04
1.0623E-02	-3.3127E-06
1.3456E-02	-2.9246E-04
1.6997E-02	-1.0507E-03
2.1246E-02	-1.6481E-03
2.6912E-02	-1.7465E-03
3.3994E-02	-2.7147E-03
4.3555E-02	-3.5710E-03
5.5241E-02	-5.9355E-03
7.1884E-02	-4.4162E-03
8.9235E-02	-4.0430E-03
1.1402E-01	3.6675E-04
1.4589E-01	-5.7505E-04
1.8520E-01	-2.2158E-04
2.3619E-01	-8.4838E-05
3.0170E-01	-1.1289E-04
3.8456E-01	-4.2521E-05
4.9256E-01	-5.7609E-05
6.2677E-01	1.0058E-04
8.0028E-01	1.2269E-04

Table F.4-29 Velocity measurements made at $S/T = 0.35$ with the VW system of the laser anemometer, plane 5

File E539770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 25.3

density (kilograms per meter cubed) = 1.097473

viscosity (meters squared per second) = 1.67456E-05

Atmospheric pressure (Pascals) = 94000

Velocity of undisturbed free stream (Uref, in m/s) = 27.65475

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (in) = 4.090833E-03

Estimated momentum thickness Reynolds number = 6755.862

Location of traverse; $X/T = .75$ $Z/T = -.775$ (Plane 5, $S/T = 0.27$)

Y/T	vw/Uref2
3.8952E-03	1.6328E-03
4.6034E-03	1.6668E-03
5.6657E-03	-1.5903E-04
6.7280E-03	-3.1065E-04
7.7904E-03	1.8641E-04
9.5609E-03	-2.6766E-04
1.1686E-02	-4.0192E-03
1.4518E-02	-1.9990E-03
1.8059E-02	-1.8907E-03
2.2309E-02	-2.0535E-03
2.7975E-02	-1.7754E-03
3.5411E-02	-1.1950E-03
4.5680E-02	-1.3976E-03
5.6303E-02	-1.3607E-03
7.2238E-02	-1.2895E-03
9.1714E-02	-1.4143E-03
1.1544E-01	-5.9884E-04
1.4625E-01	-2.0535E-04
1.8626E-01	-1.0620E-04
2.3725E-01	-3.3979E-05
3.0276E-01	2.3422E-05
3.8562E-01	7.1152E-05
4.9186E-01	3.6710E-05
6.2783E-01	7.0173E-05
8.0099E-01	2.1917E-04

Table F.4-30 Velocity measurements made at $S/T = 0.27$ with the VW system of the laser anemometer, plane 5

File E540770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.5

density (kilograms per meter cubed) = 1.101595

viscosity (meters squared per second) = 1.664846E-05

Atmospheric pressure (Pascals) = 94100

Velocity of undisturbed free stream (Uref, in m/s) = 27.53132

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.094494E-03

Estimated momentum thickness Reynolds number = 6771.005

Location of traverse; X/T = .75 Z/T = -.7 (Plane 5 , S/T = 0.20)

Y/T	vw/Uref2
4.7805E-03	2.5805E-03
5.8428E-03	1.0682E-03
6.9051E-03	8.3600E-04
8.6756E-03	8.8830E-05
1.0800E-02	-1.6190E-03
1.3633E-02	-1.3363E-03
1.7174E-02	-9.9636E-04
2.1424E-02	-1.1692E-03
2.7089E-02	-1.2507E-03
3.4171E-02	-5.8089E-04
4.3732E-02	-5.5017E-04
5.5418E-02	-6.1258E-04
7.0644E-02	-5.9397E-04
8.9412E-02	-3.8332E-04
1.1420E-01	-3.6156E-04
1.4572E-01	-2.7113E-04
1.8538E-01	-3.0141E-04
2.3637E-01	-2.1616E-04
3.0400E-01	-7.4543E-05
3.8474E-01	5.8447E-05
4.9239E-01	1.1703E-04
6.2695E-01	1.3144E-04
8.0011E-01	2.3887E-04

Table F.4-31 Velocity measurements made at S/T = 0.20 with the VW system of the laser anemometer, plane 5

File E541770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.9

density (kilograms per meter cubed) = 1.11017

viscosity (meters squared per second) = 1.653697E-05

Atmospheric pressure (Pascals) = 94960

Velocity of undisturbed free stream (Uref, in m/s) = 27.71033

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.08919E-03

Estimated momentum thickness Reynolds number = 6852.09

Location of traverse; $X/T = .75$ $Z/T = -.625$ (Plane 5, $S/T = 0.13$)

Y/T	vw/Uref2
4.0722E-03	4.4333E-04
5.1346E-03	-3.0271E-04
6.1969E-03	-2.1232E-04
7.9674E-03	-7.6095E-04
1.0092E-02	-0.0354E-04
1.2925E-02	-1.3359E-03
1.6466E-02	-6.2886E-04
2.0715E-02	-4.7640E-04
2.6735E-02	-2.2160E-04
3.4525E-02	1.2420E-04
4.3024E-02	1.9828E-04
5.4710E-02	-1.3702E-05
6.9936E-02	1.2698E-04
8.8704E-02	9.8641E-05
1.1349E-01	-1.8360E-04
1.4465E-01	1.1882E-05
1.8467E-01	1.9314E-05
2.3566E-01	1.5986E-05
3.0081E-01	1.3769E-04
3.8403E-01	1.4710E-04
4.9026E-01	2.2134E-04
6.2624E-01	2.3686E-04
7.9940E-01	1.6904E-04

Table F.4-32 Velocity measurements made at $S/T = 0.13$ with the VW system of the laser anemometer, plane 5

File E542770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.6

density (kilograms per meter cubed) = 1.109124

viscosity (meters squared per second) = 1.653971E-05

Atmospheric pressure (Pascals) = 94775

Velocity of undisturbed free stream (Uref, in m/s) = 27.71352

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089096E-03

Estimated momentum thickness Reynolds number = 6851.585

Location of traverse; X/T = .75 Z/T = -.55 (Plane 5, S/T = 0.05)

Y/T	vw/Uref2
6.3739E-03	-4.7451E-05
7.4363E-03	-1.9430E-04
9.2068E-03	-1.7226E-04
1.1331E-02	-1.3732E-04
1.4164E-02	1.1265E-05
1.7705E-02	-3.8085E-04
2.1955E-02	2.9300E-04
2.7620E-02	2.8759E-04
3.4703E-02	5.6332E-06
4.4263E-02	4.6844E-04
5.6657E-02	4.0607E-04
7.0822E-02	1.2352E-03
9.1006E-02	6.8963E-04
1.1473E-01	4.7708E-04
1.4589E-01	1.7169E-04
1.8626E-01	5.1717E-05
2.3761E-01	9.8511E-05
3.0205E-01	1.1161E-04
3.8527E-01	3.3368E-05

Table F.4-33 Velocity measurements made at S/T = 0.05 with the VW system of the laser anemometer, plane 5

F.5 LDV MEASUREMENTS IN PLANE 8

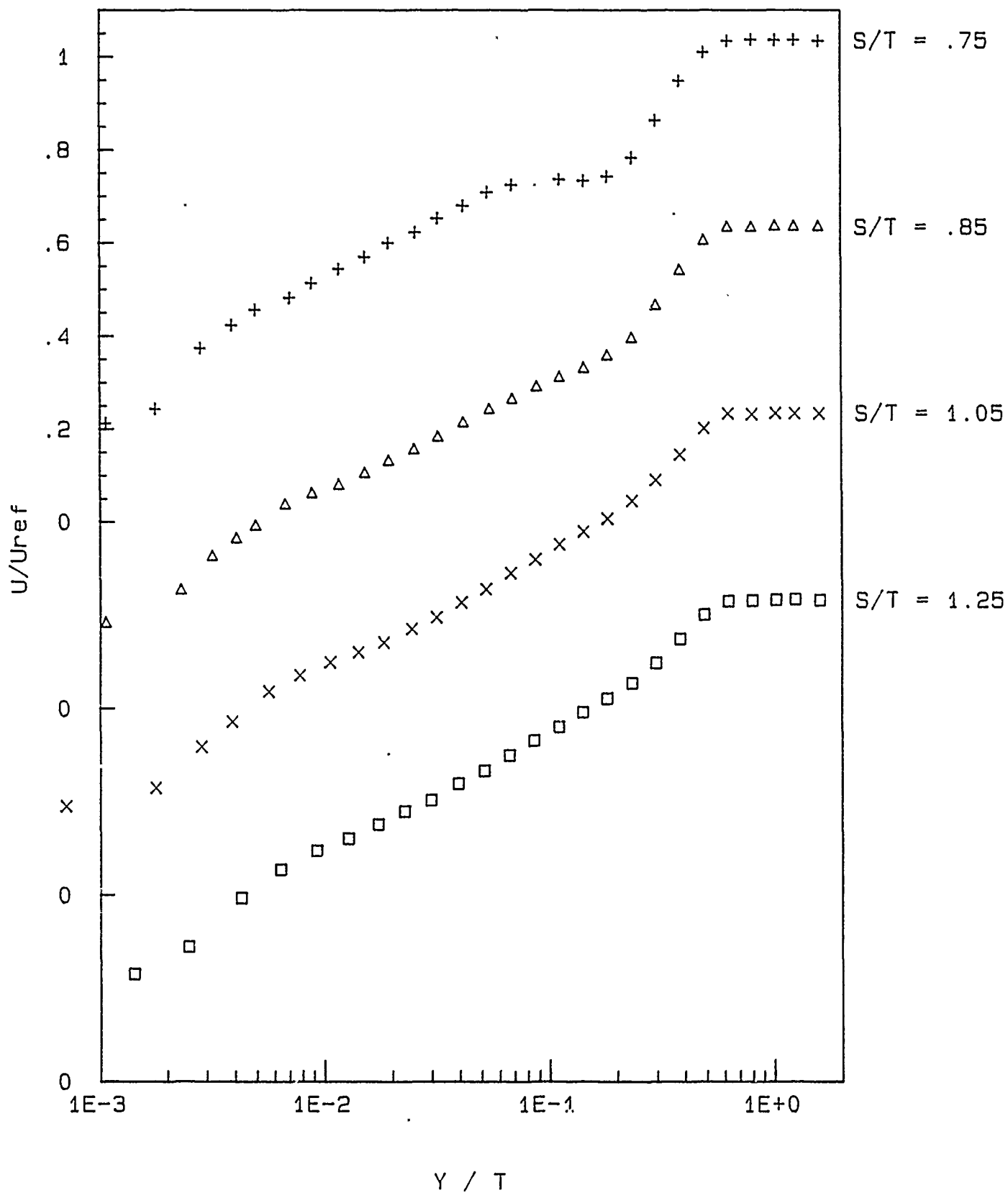


Figure F.5-1(a) Profiles of mean-velocity component U, plane 8.

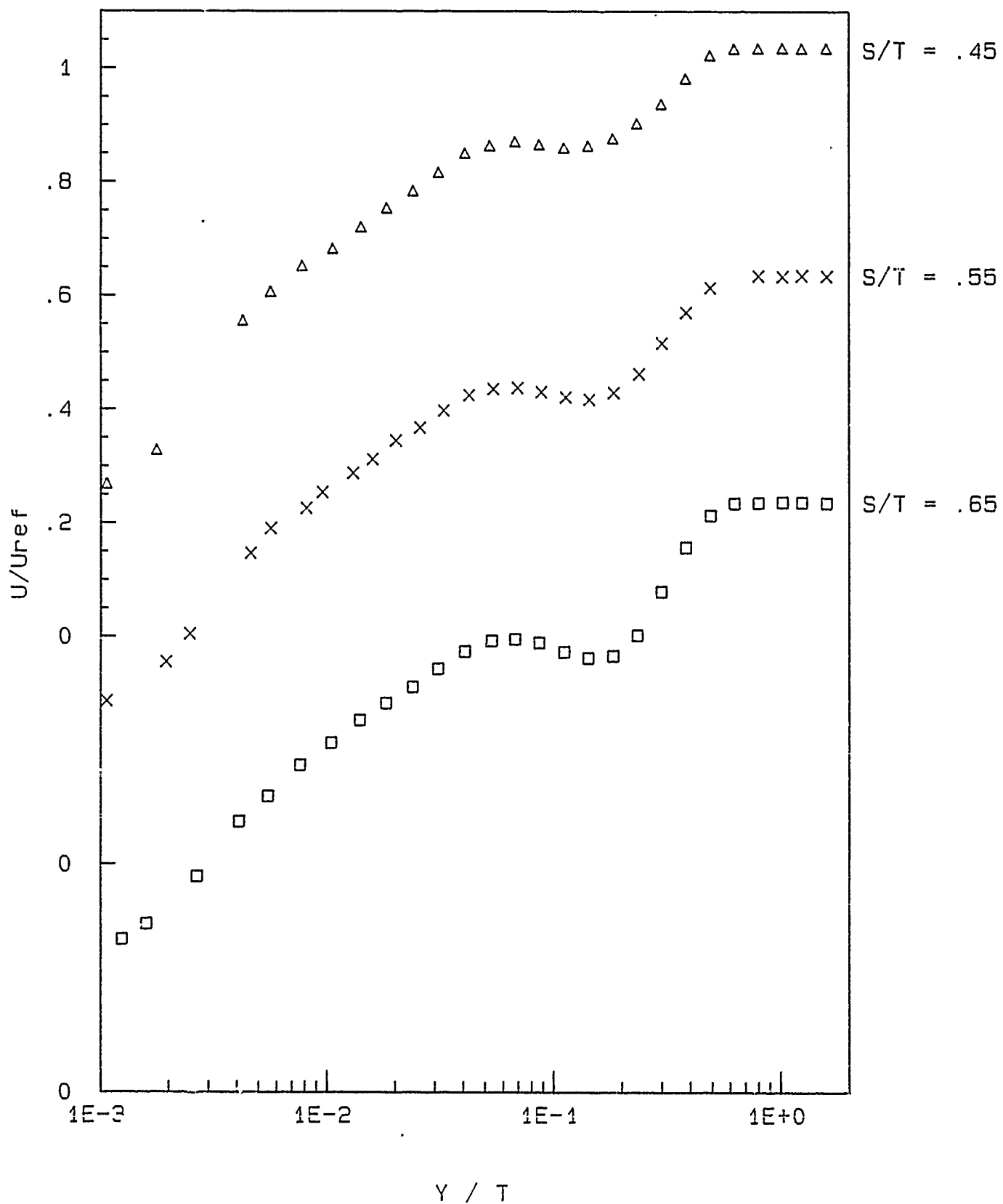


Figure F.5-1(b) Profiles of mean-velocity component U , plane 8.

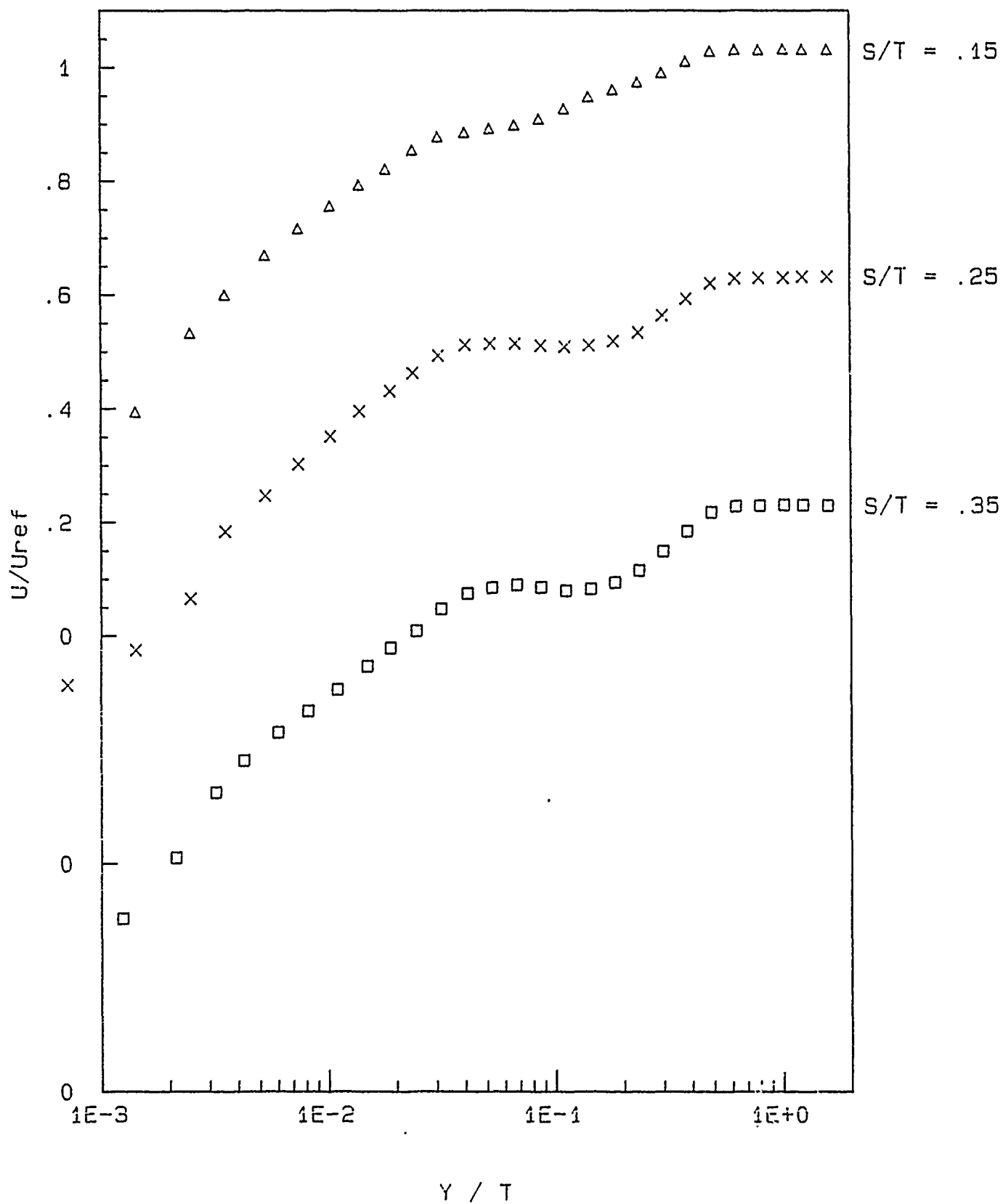


Figure F.5-1(c) Profiles of mean-velocity component U, plane 8.

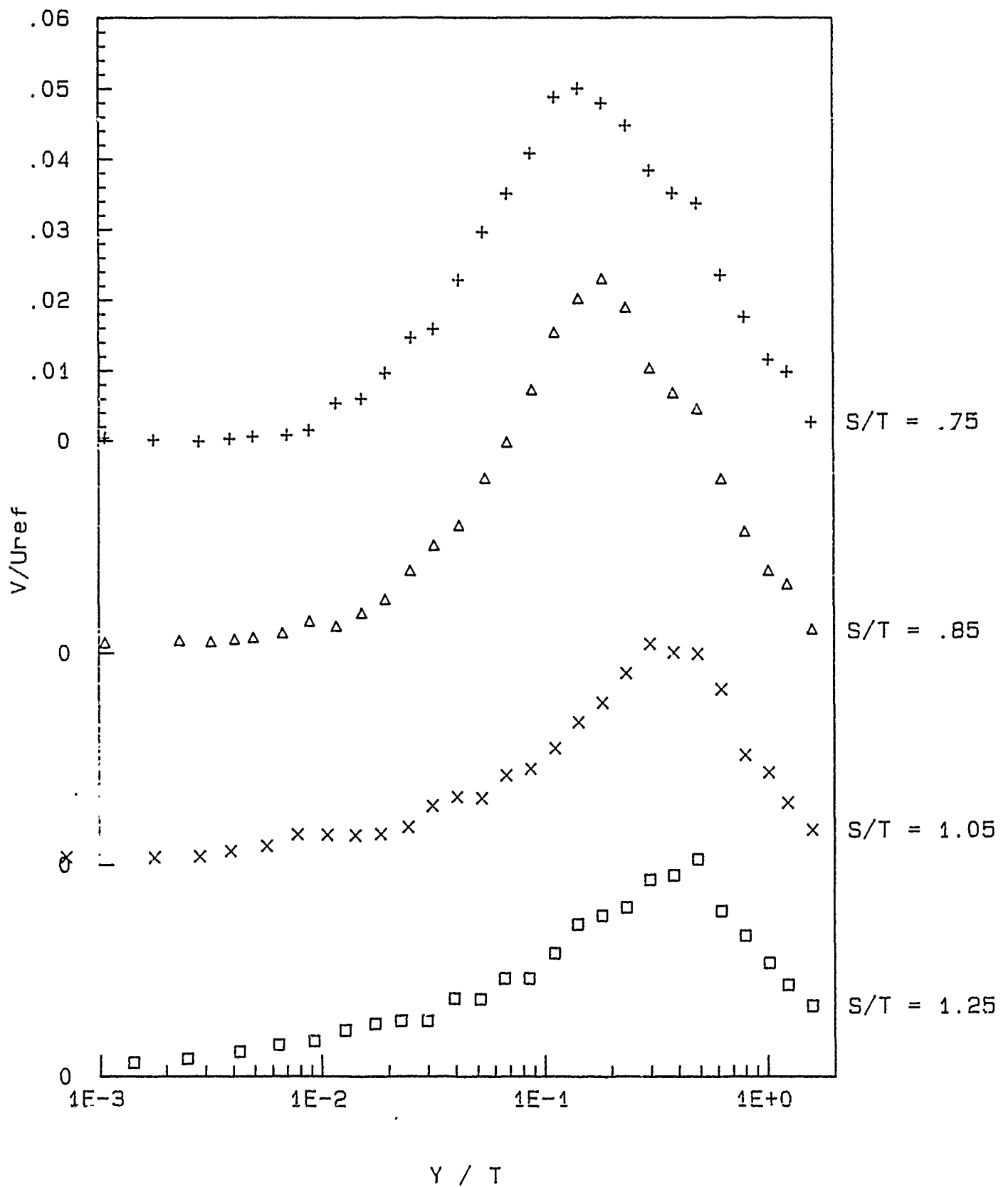


Figure F.5-2(a) Profiles of mean-velocity component V , plane 8.

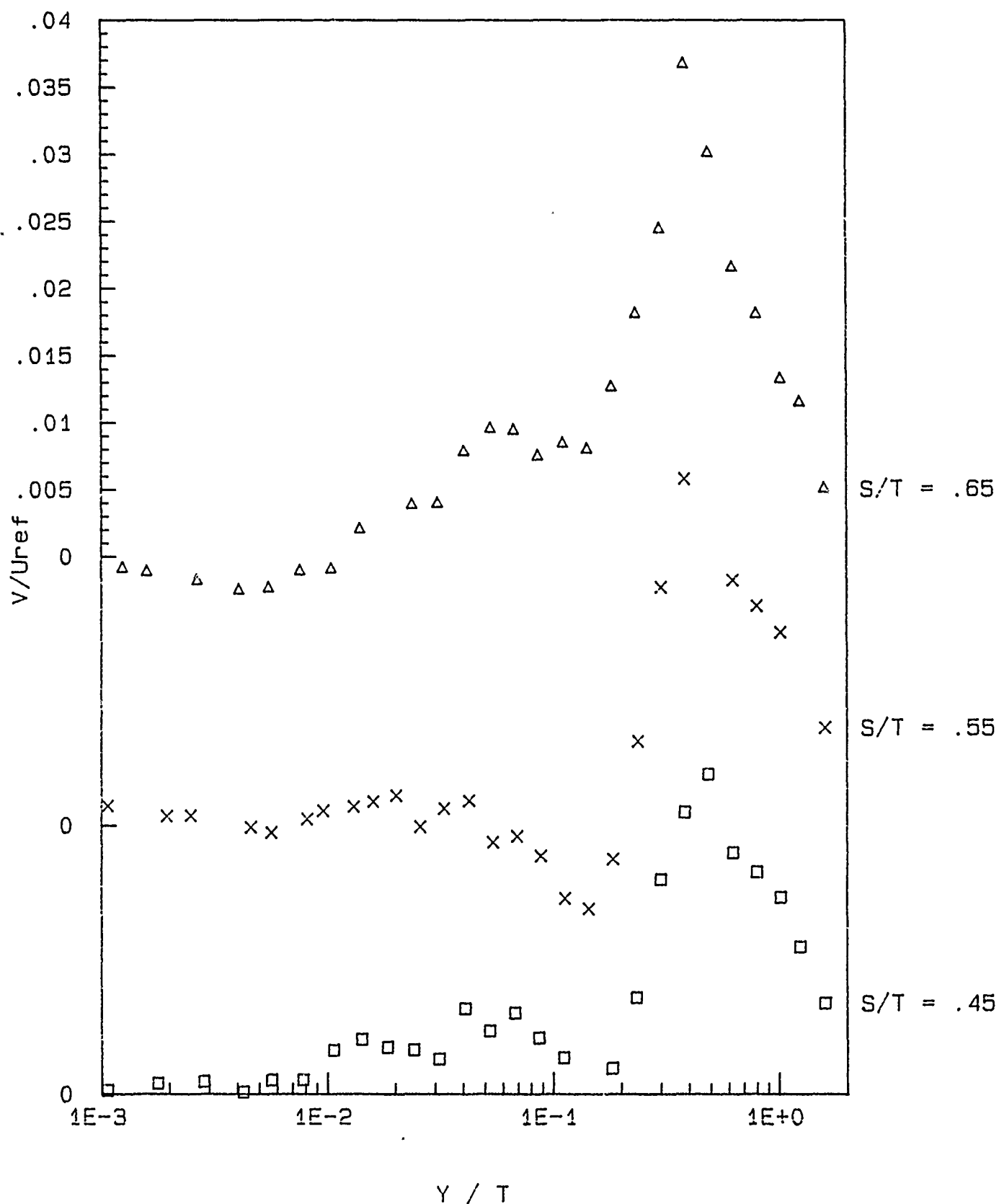


Figure F.5-2(b) Profiles of mean-velocity component V, plane 8.

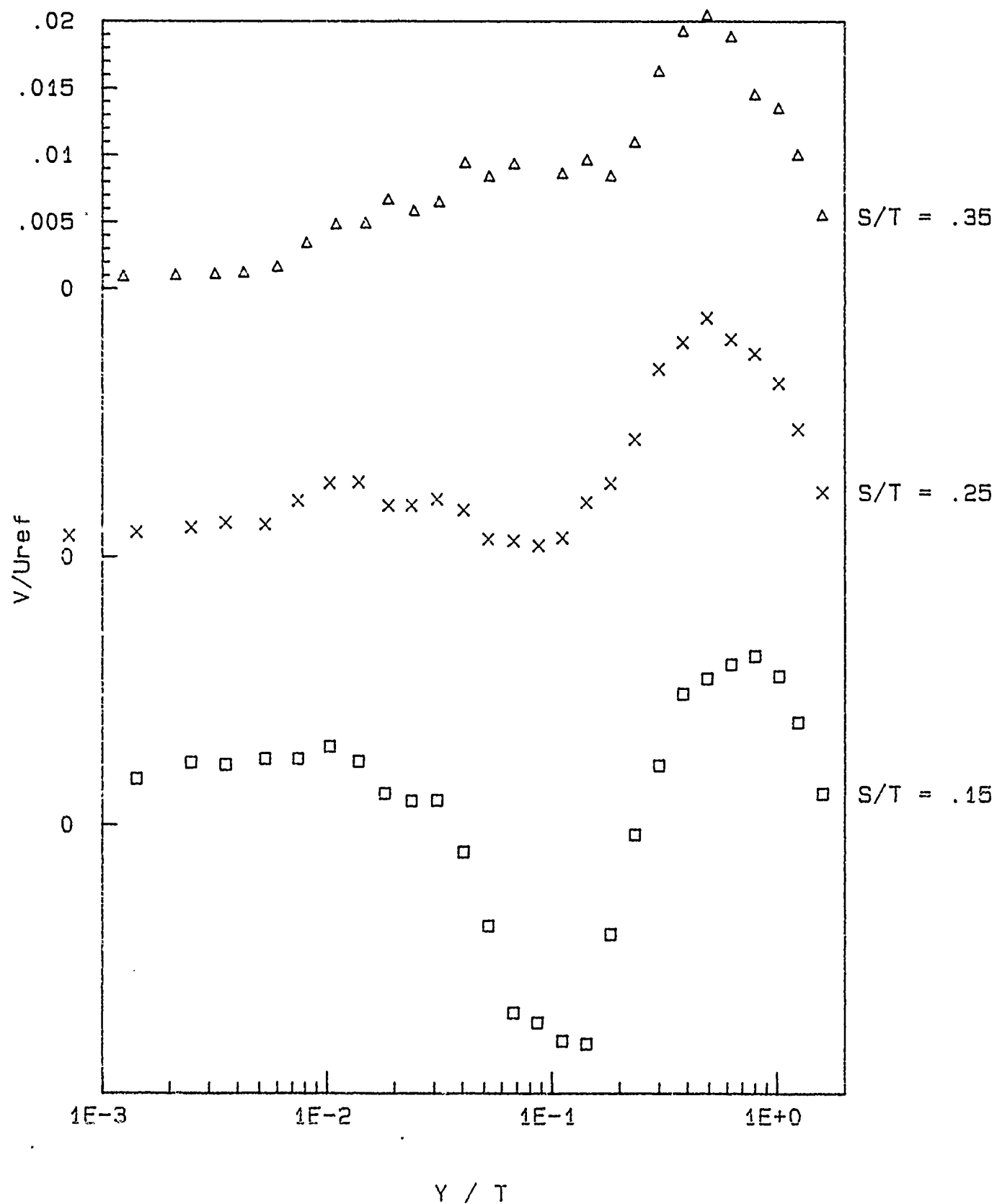


Figure F.5-2(c) Profiles of mean-velocity component V, plane 8.

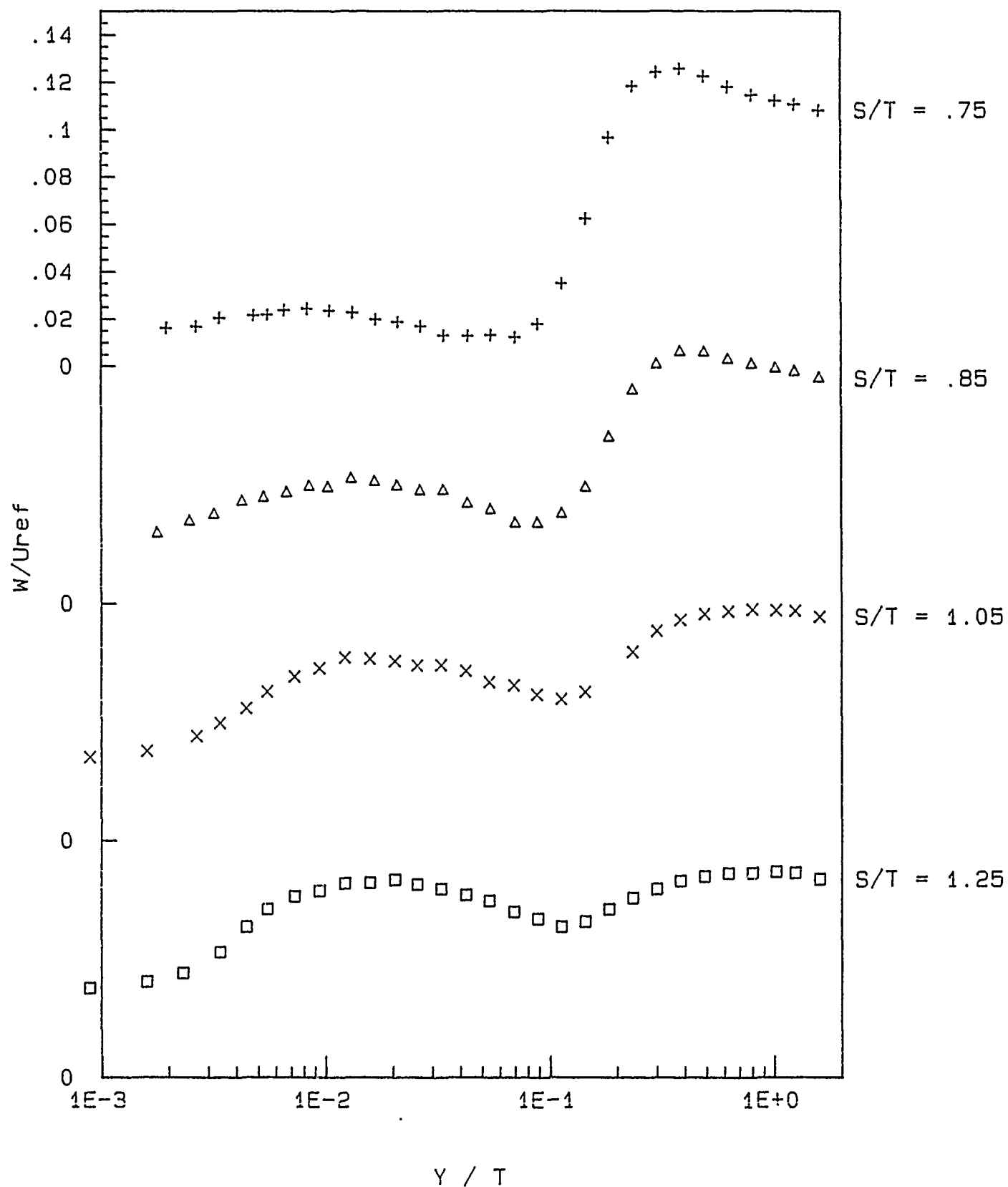


Figure F.5-3(a) Profiles of mean-velocity component W, plane 8.

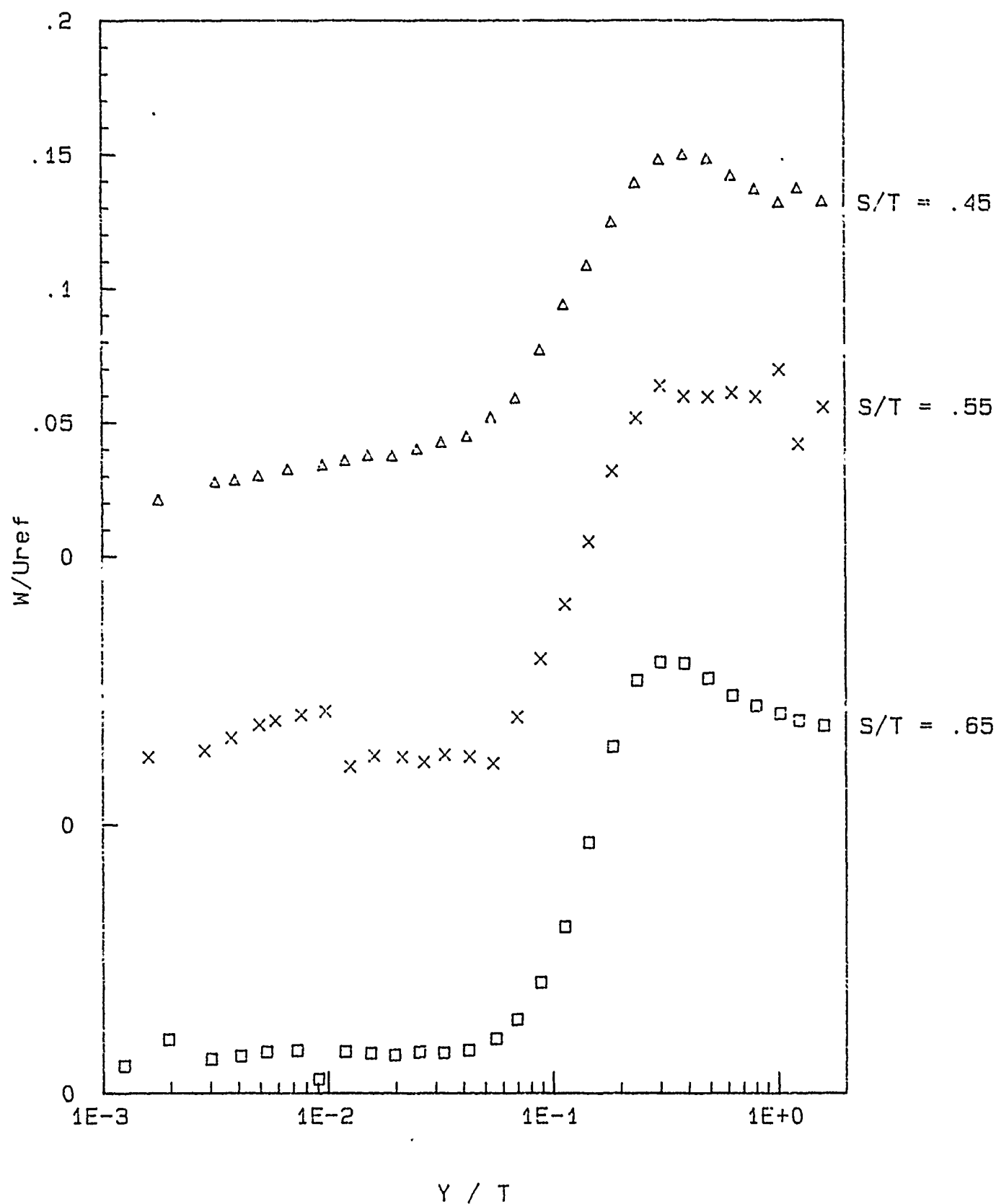


Figure F.5-3(b) Profiles of mean-velocity component W , plane 8.

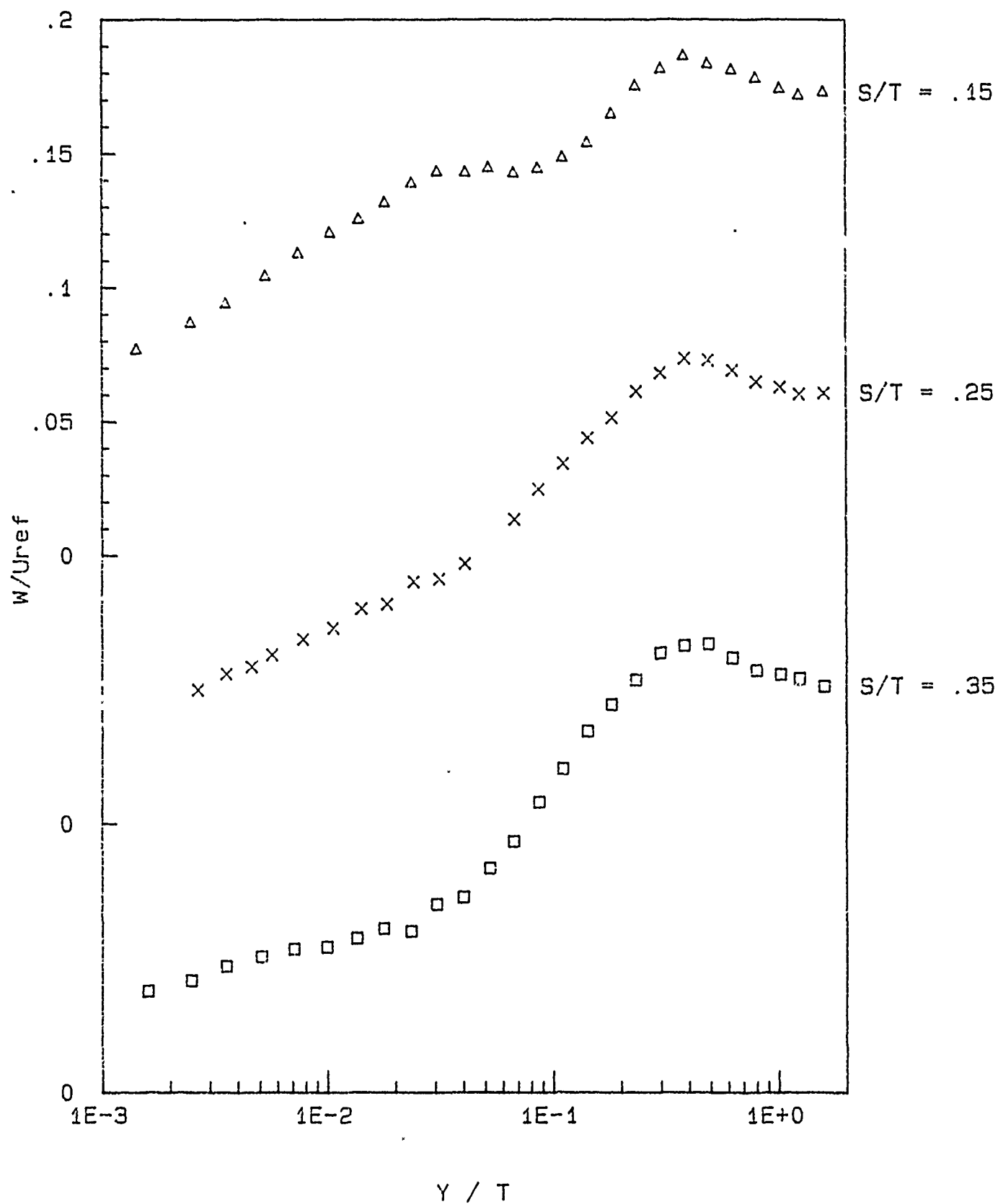


Figure F.5-3(c) Profiles of mean-velocity component W, plane 8.

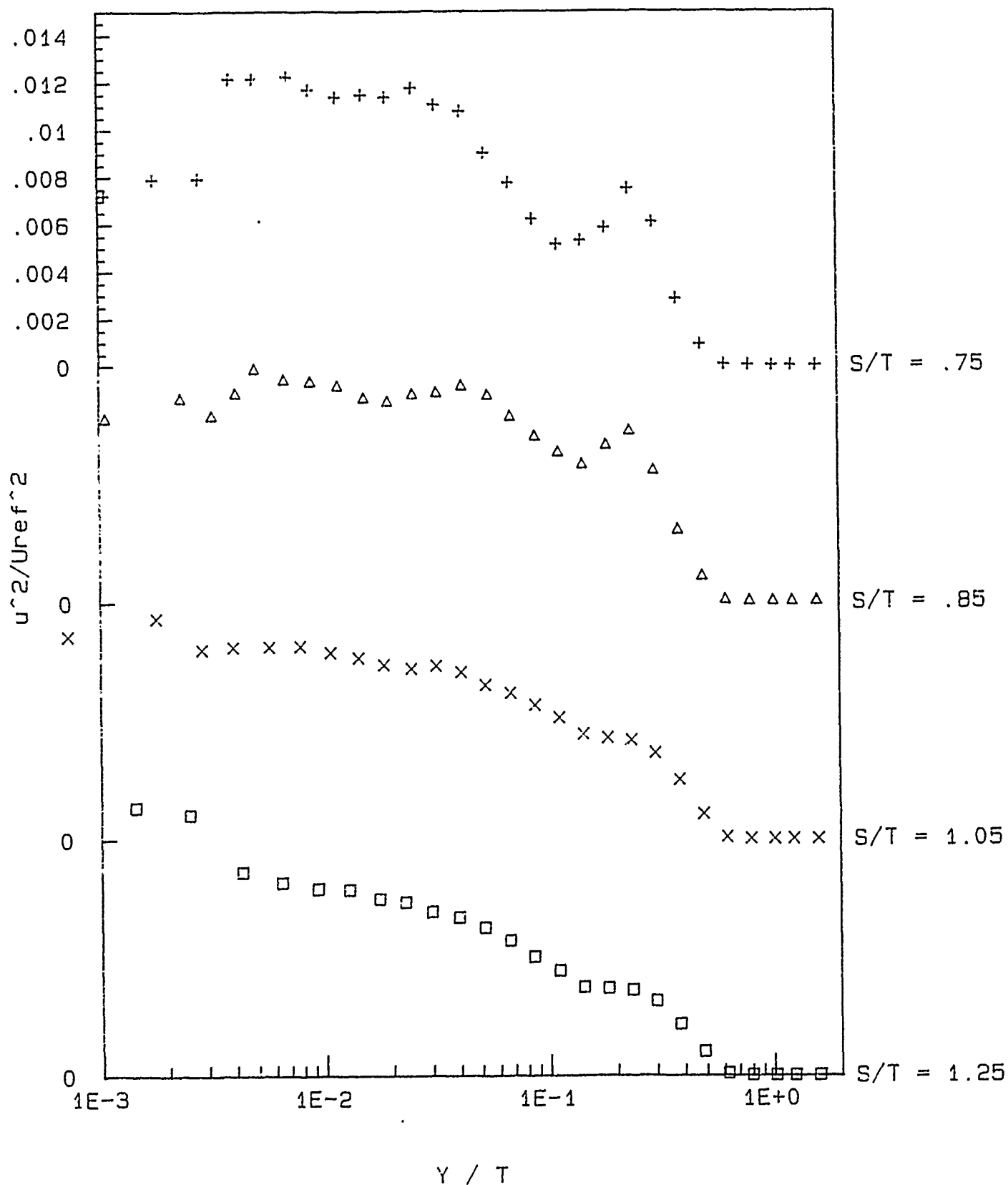


Figure F.5-4(2) Profiles of U component of turbulence normal stress, plane 8.

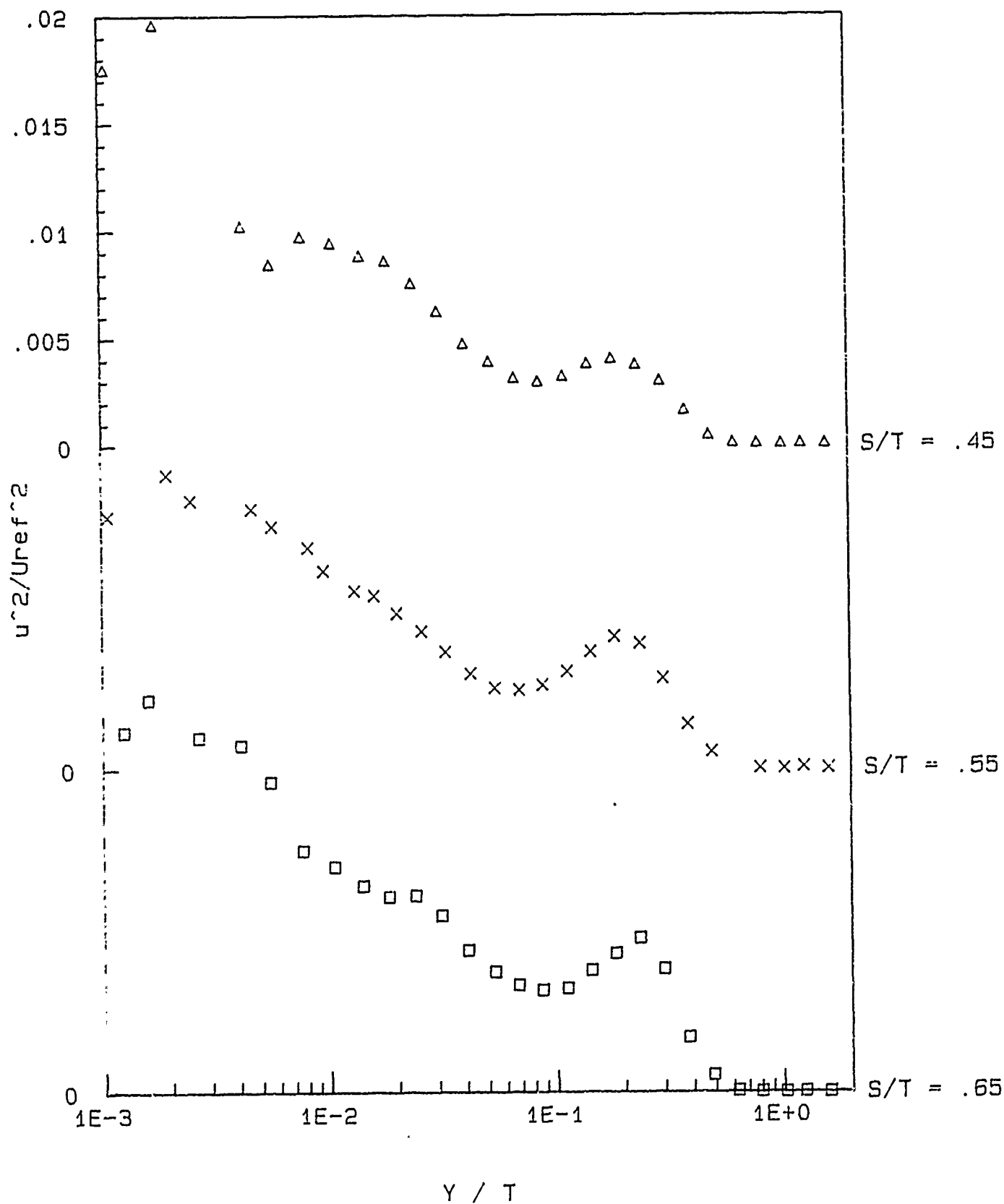


Figure F.5-4(b) Profiles of U component of turbulence normal stress, plane 8.

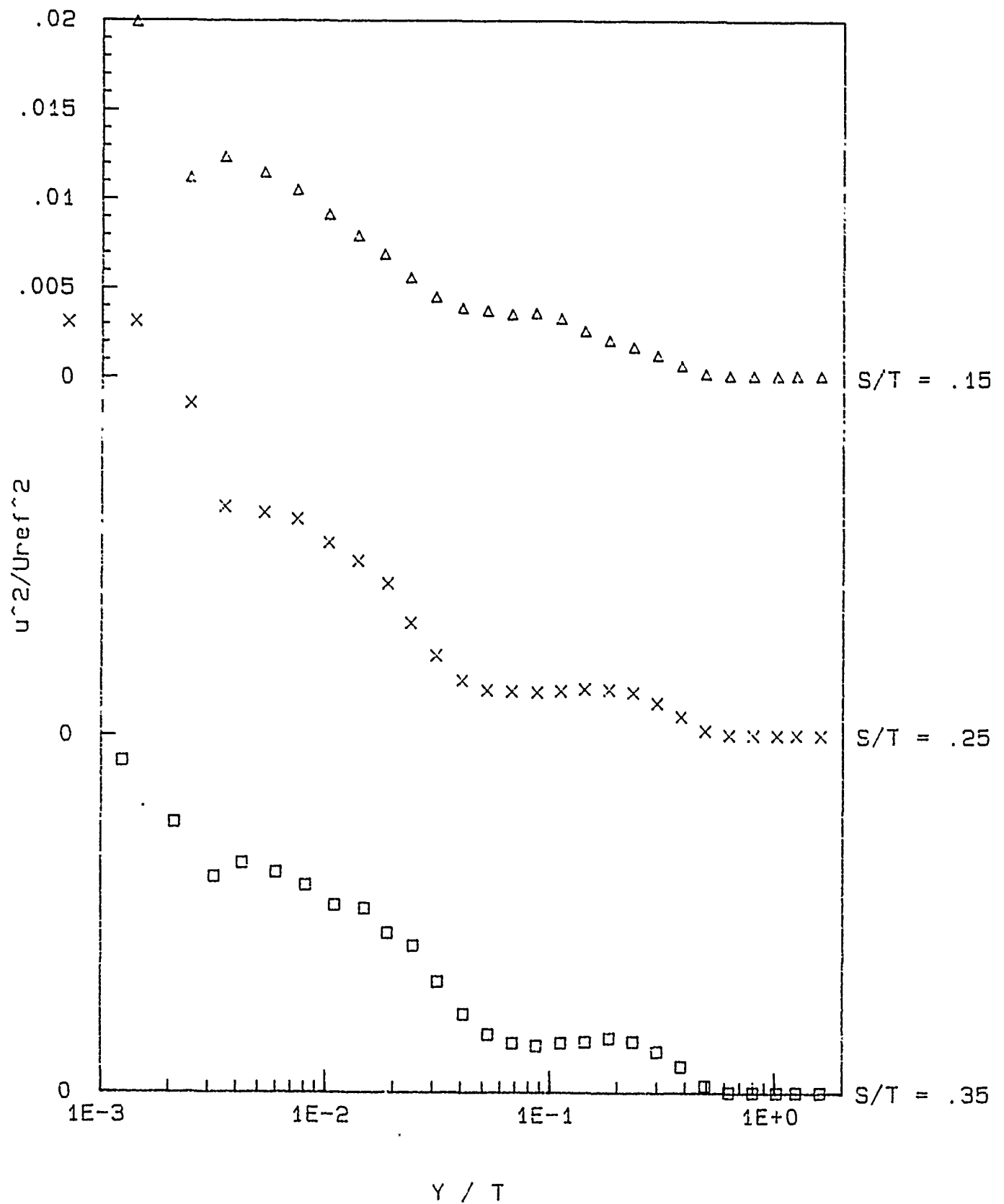


Figure F.5-4(c) Profiles of U component of turbulence normal stress, plane 8.

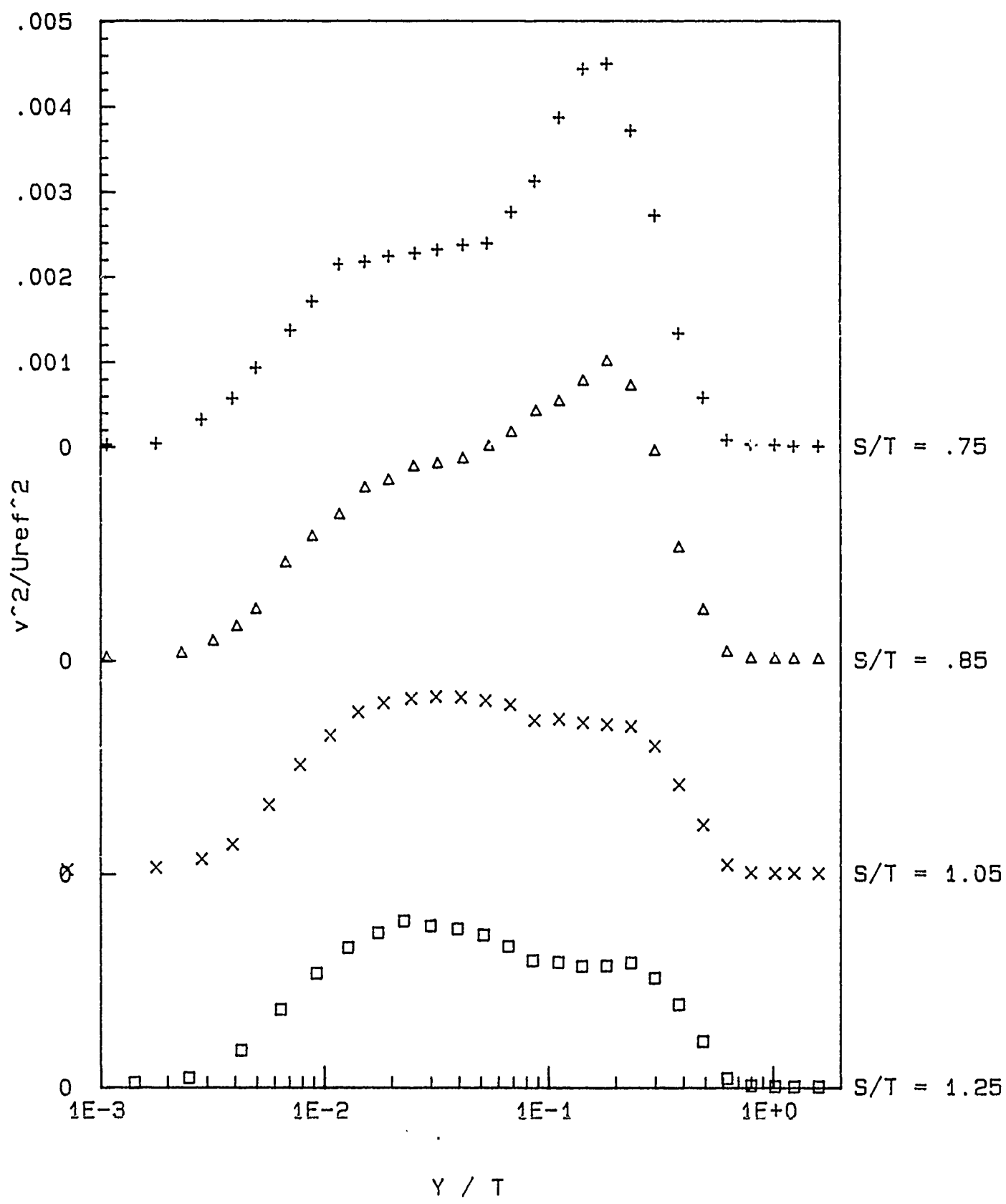


Figure F.5-5(a) Profiles of V component of turbulence normal stress, plane 8.

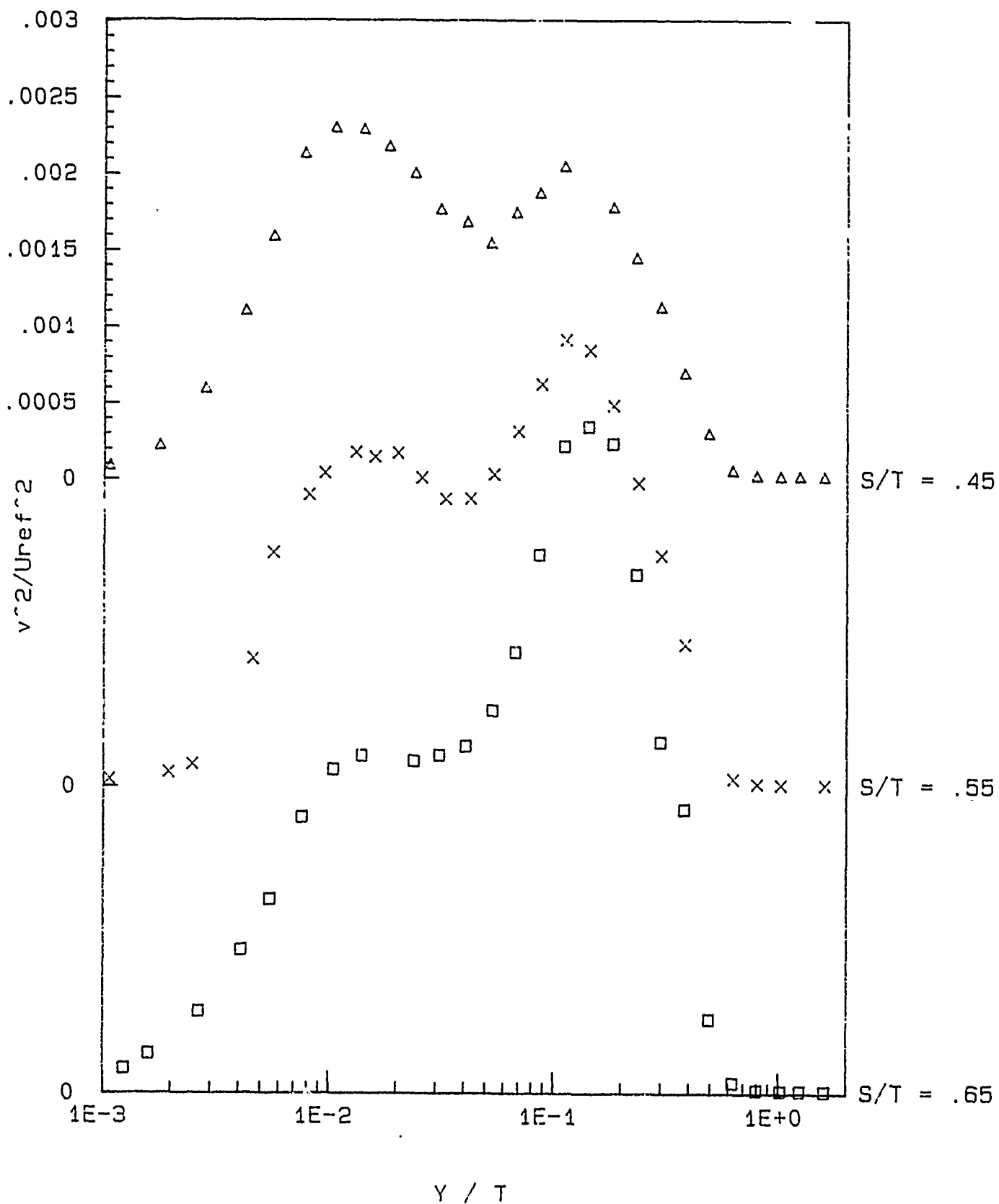


Figure F.5-5(b) Profiles of V component of turbulence normal stress, plane 8.

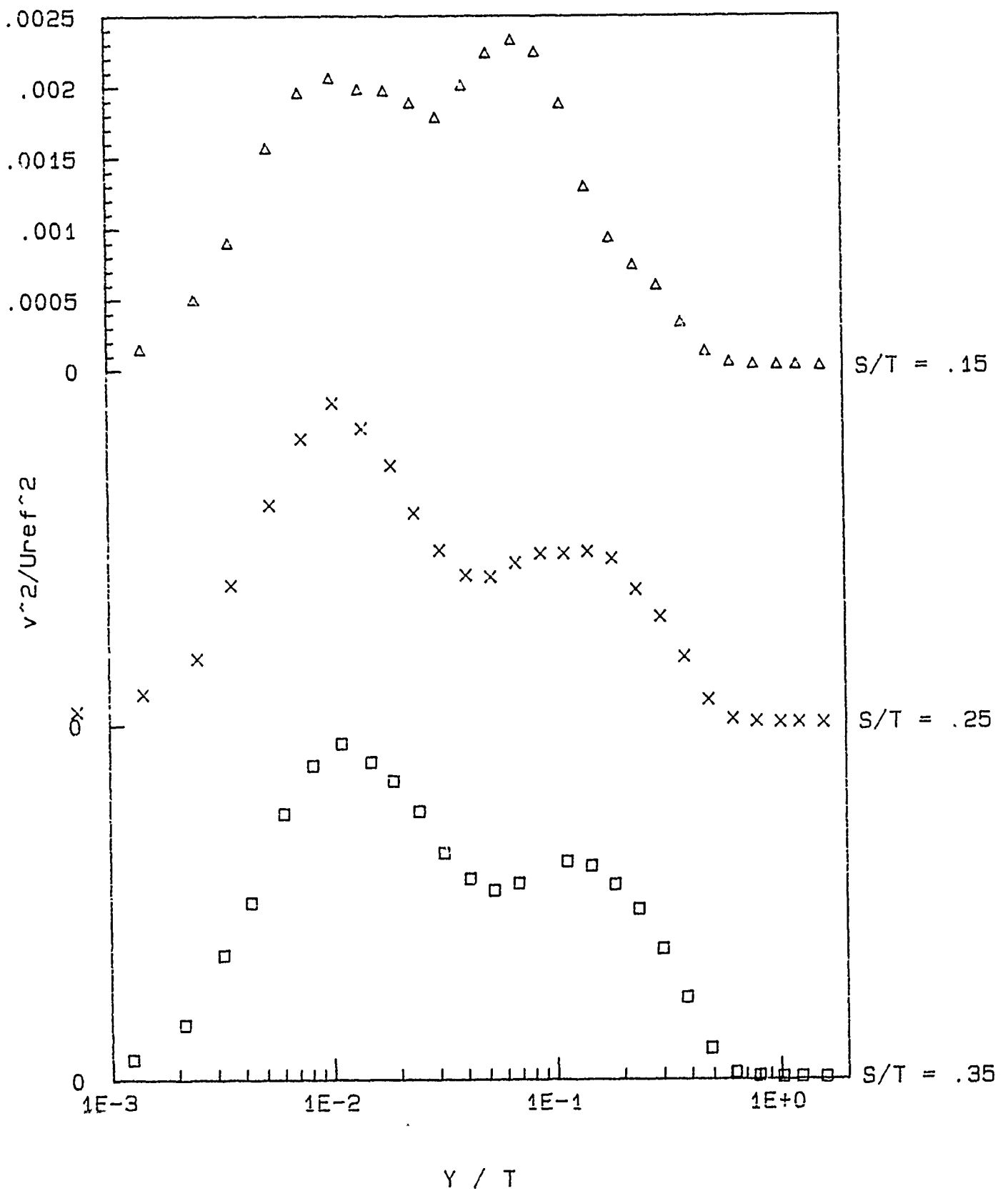


Figure F.5-5(c) Profiles of V component of turbulence normal stress, plane 8.

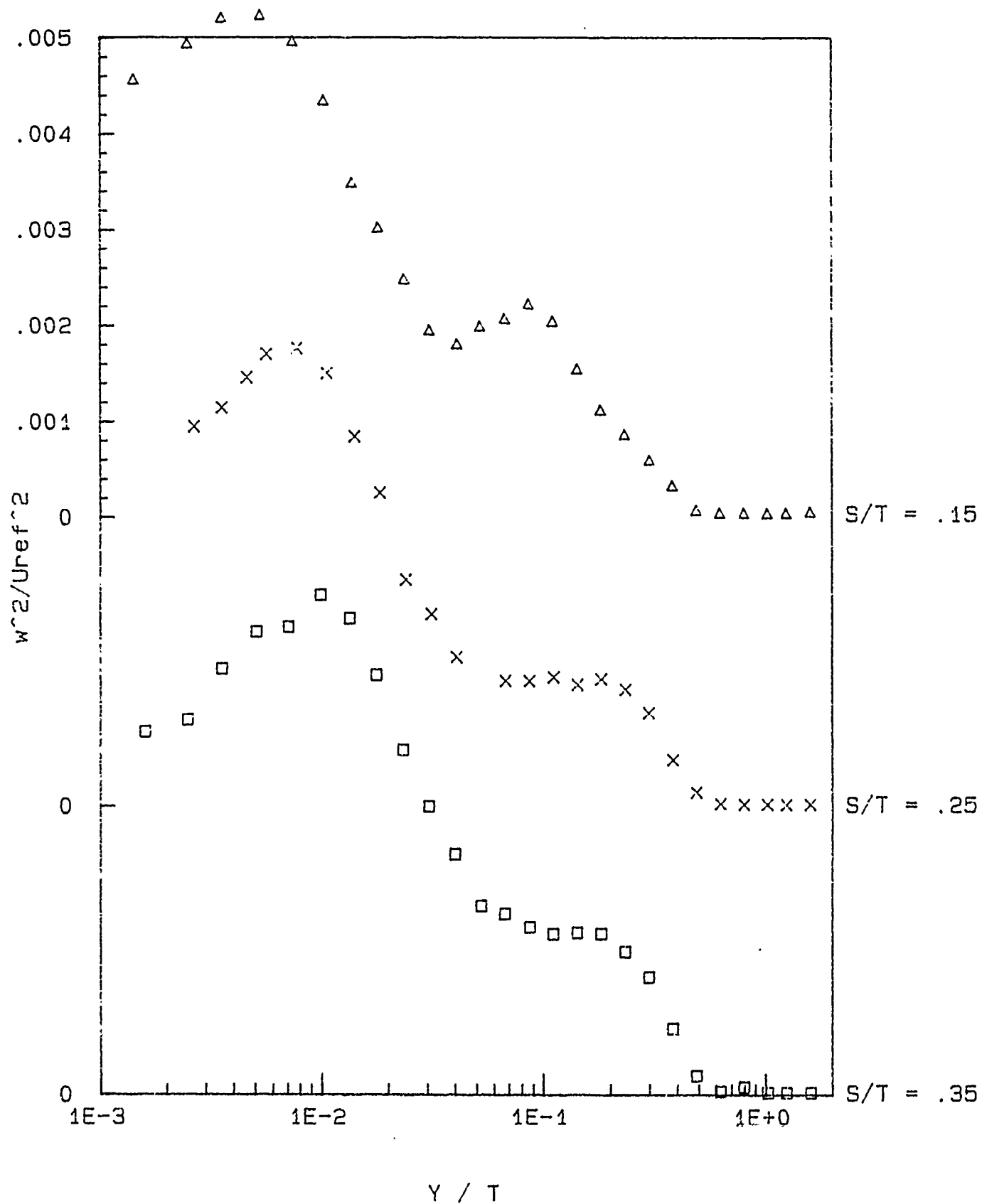


Figure F.5-6(a) Profiles of W component of turbulence normal stress, plane 8.

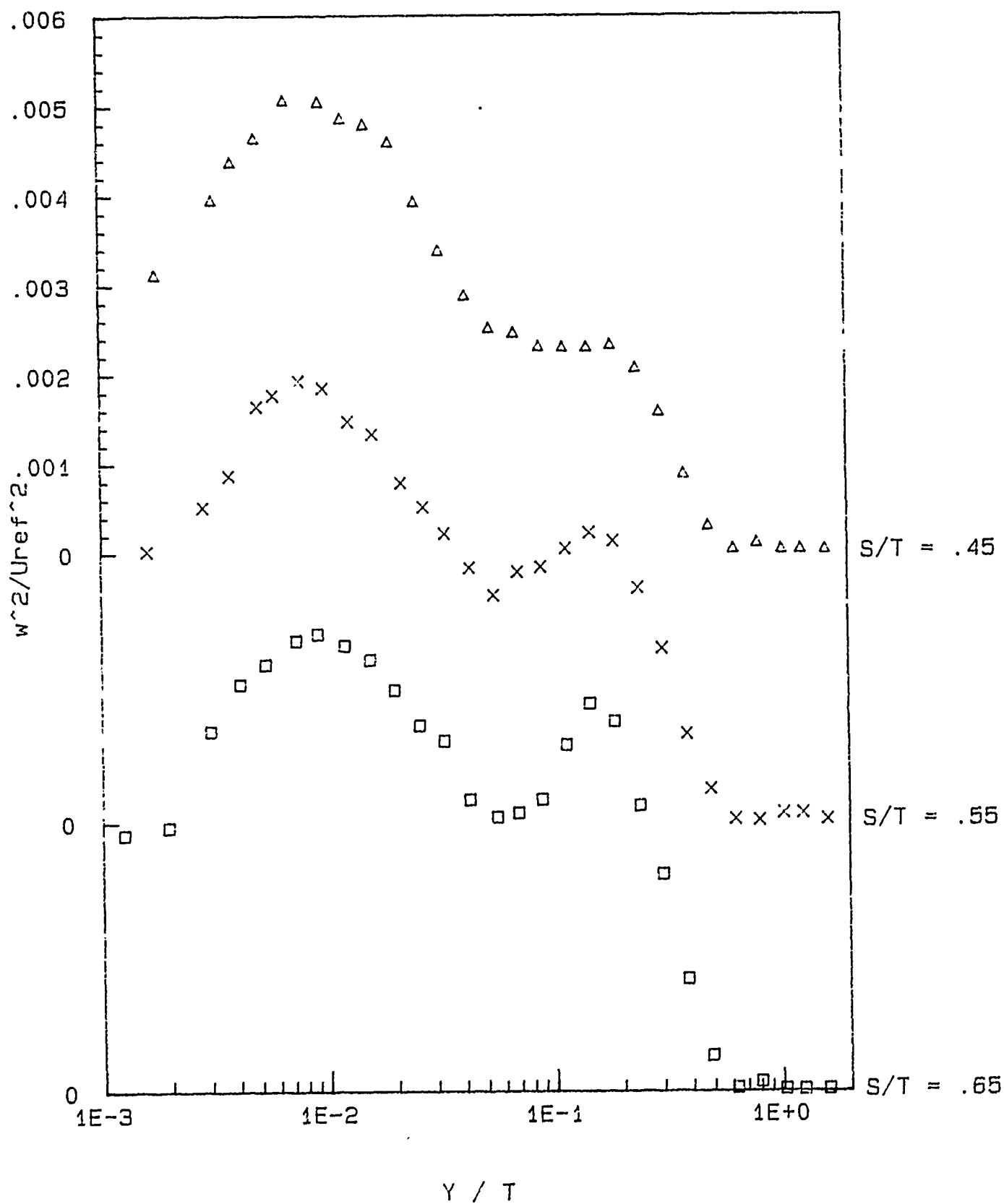


Figure F.5-6(b) Profiles of W component of turbulence normal stress, plane 8.

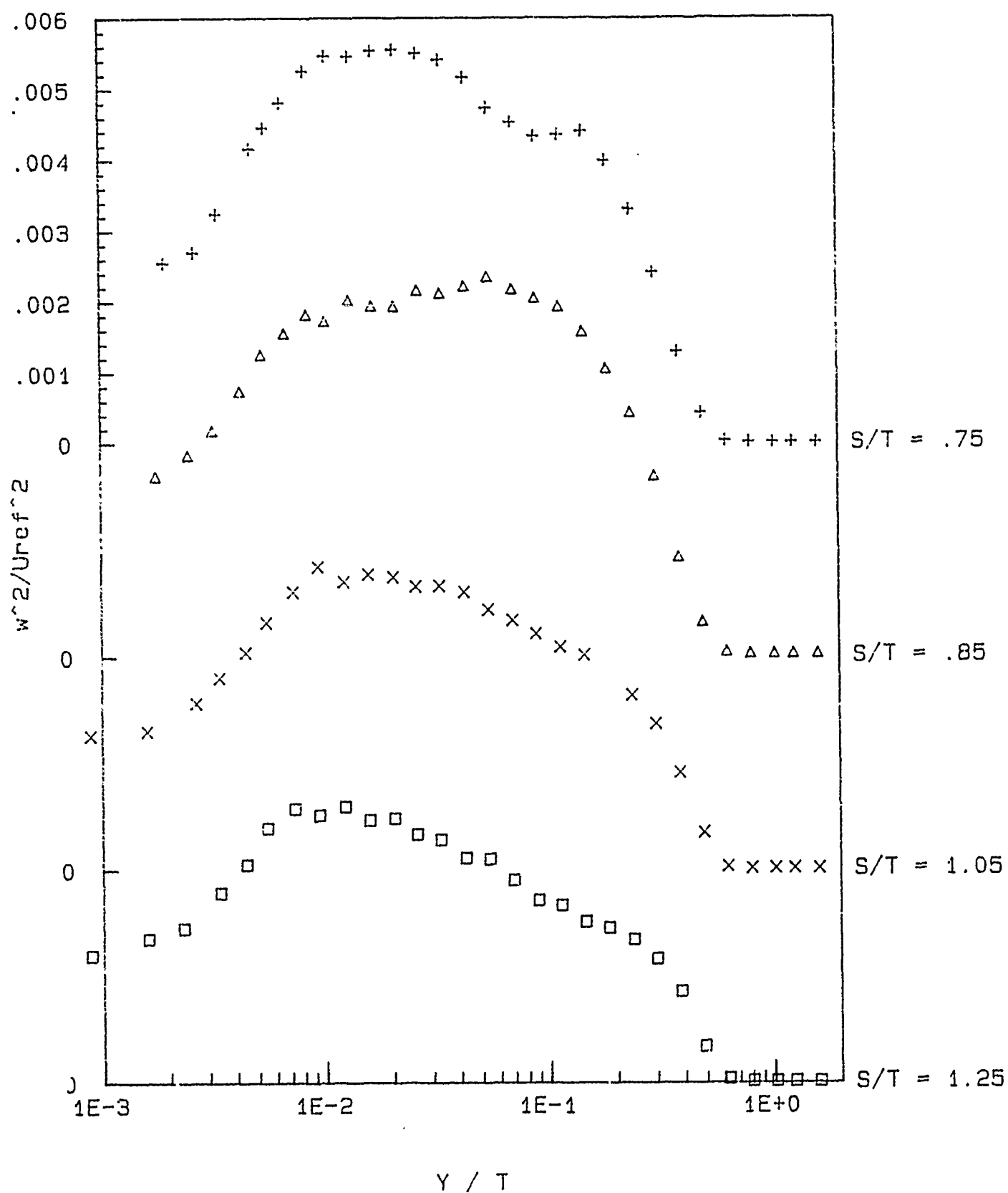


Figure F.5-6(c) Profiles of W component of turbulence normal stress, plane 8.

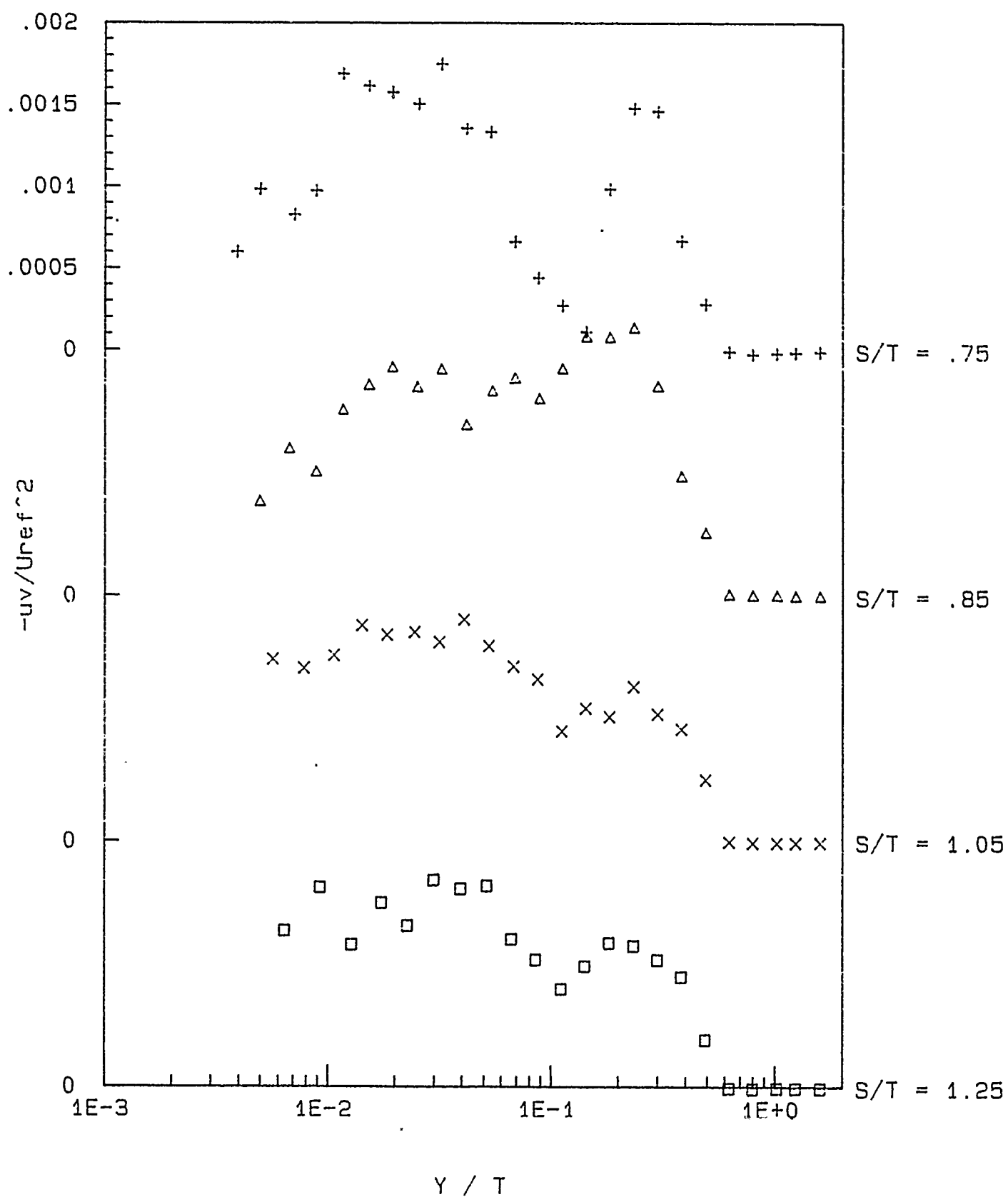


Figure F.5-7(a) Profiles of UV Reynolds shear stress, plane 8.

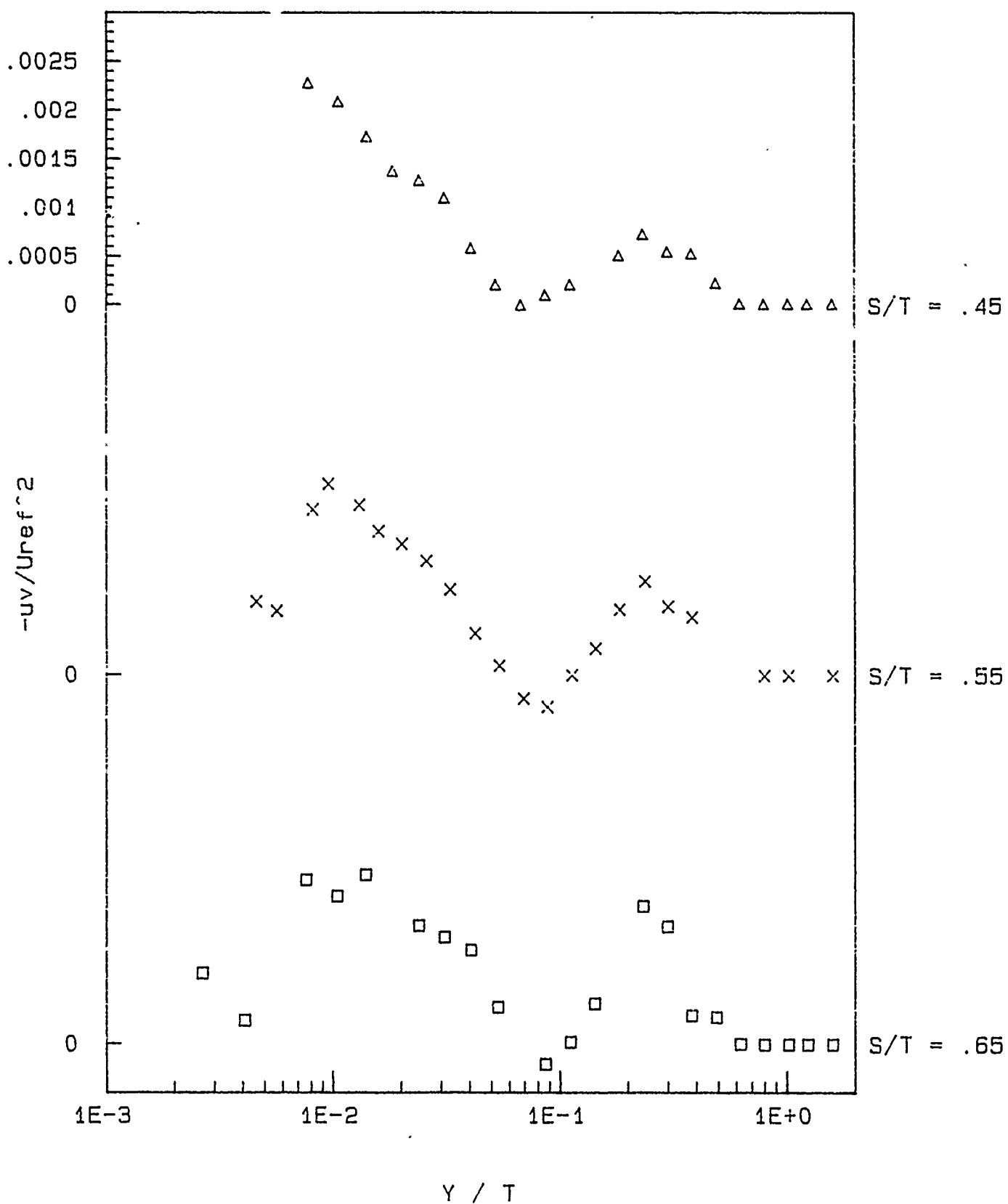


Figure F.5-7(b) Profiles of UV Reynolds shear stress, plane 8.

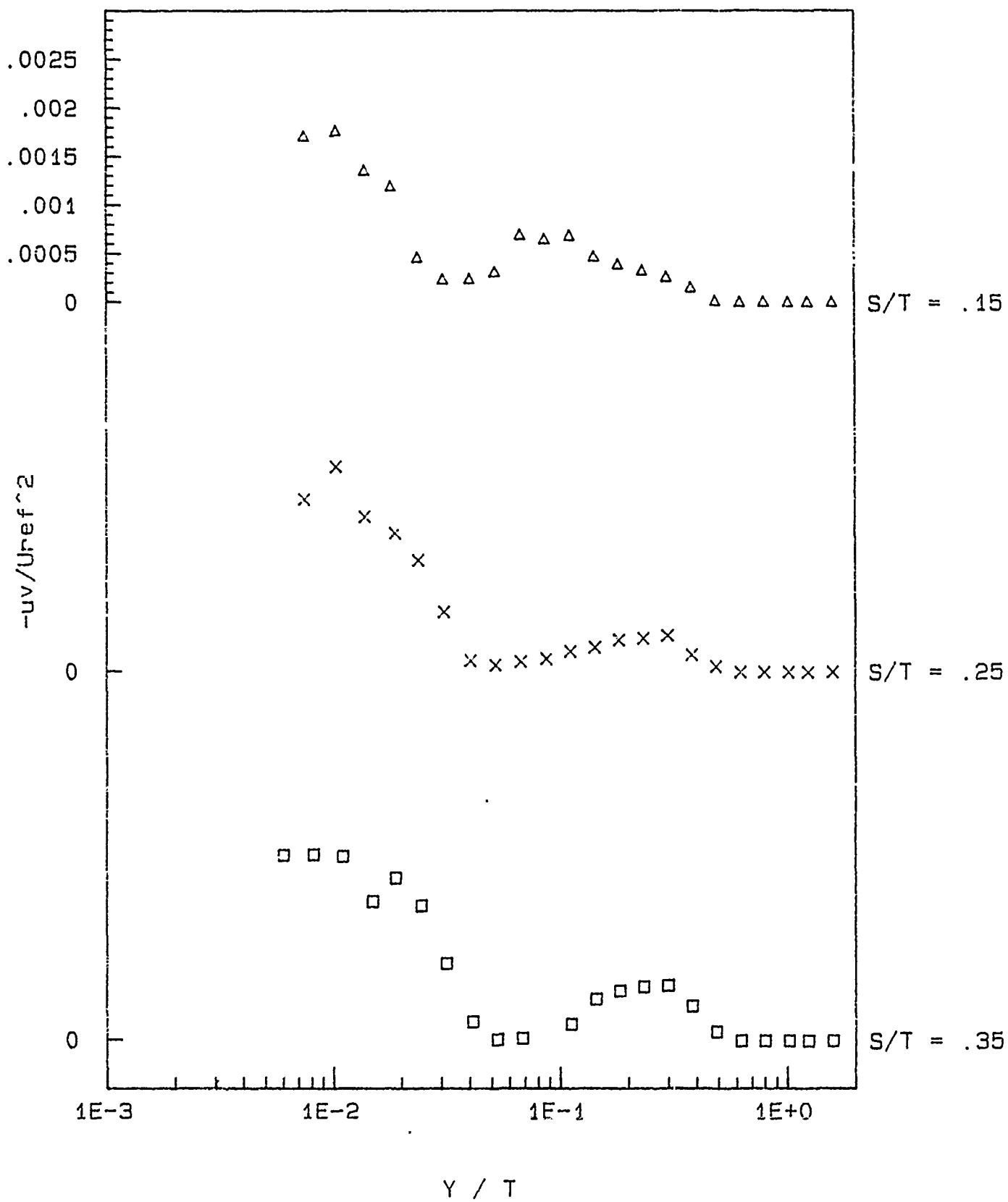


Figure F.5-7(c) Profiles of UV Reynolds shear stress, plane 8.

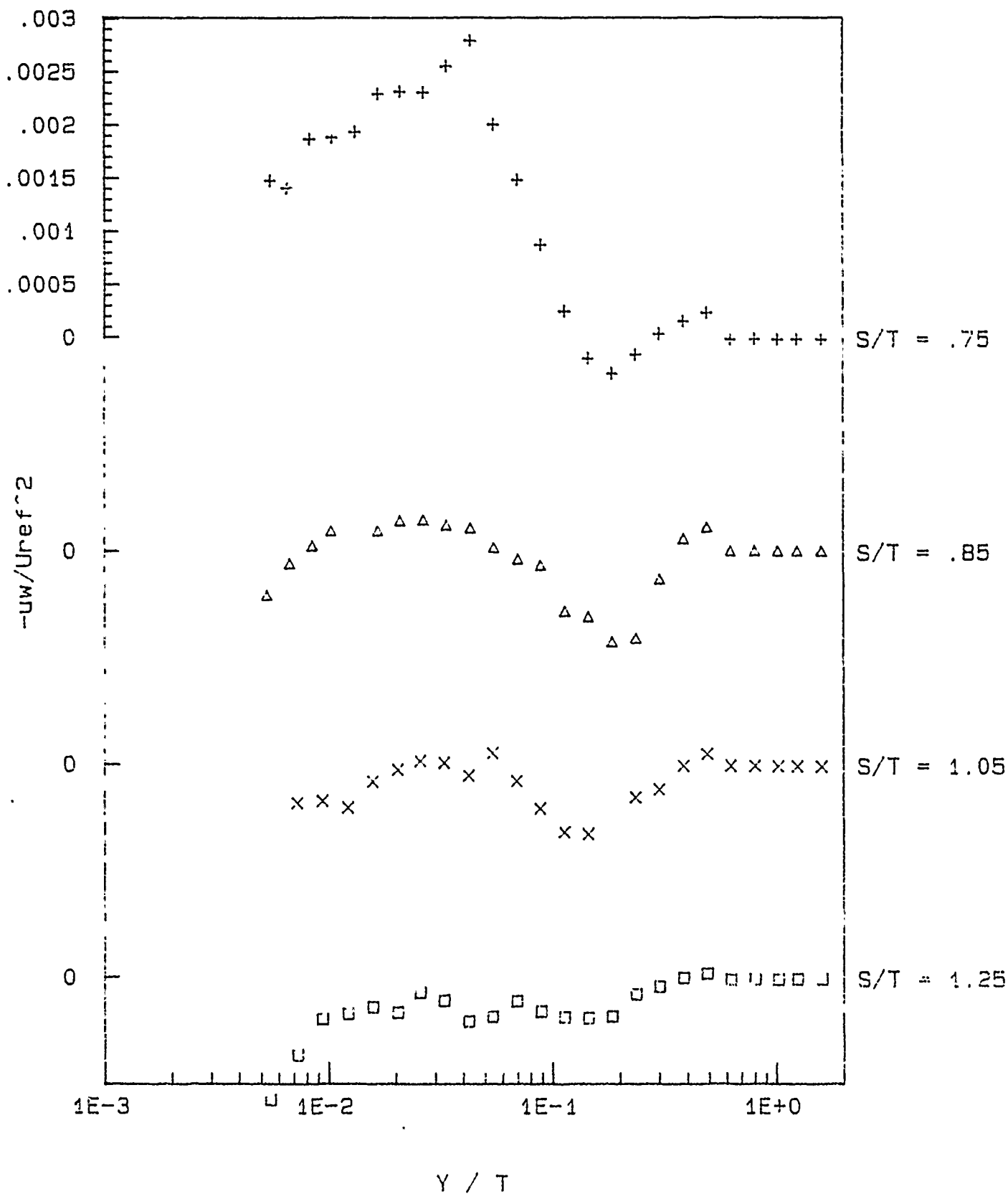


Figure F.5-8(a) Profiles of UW Reynolds shear stress, plane 8.

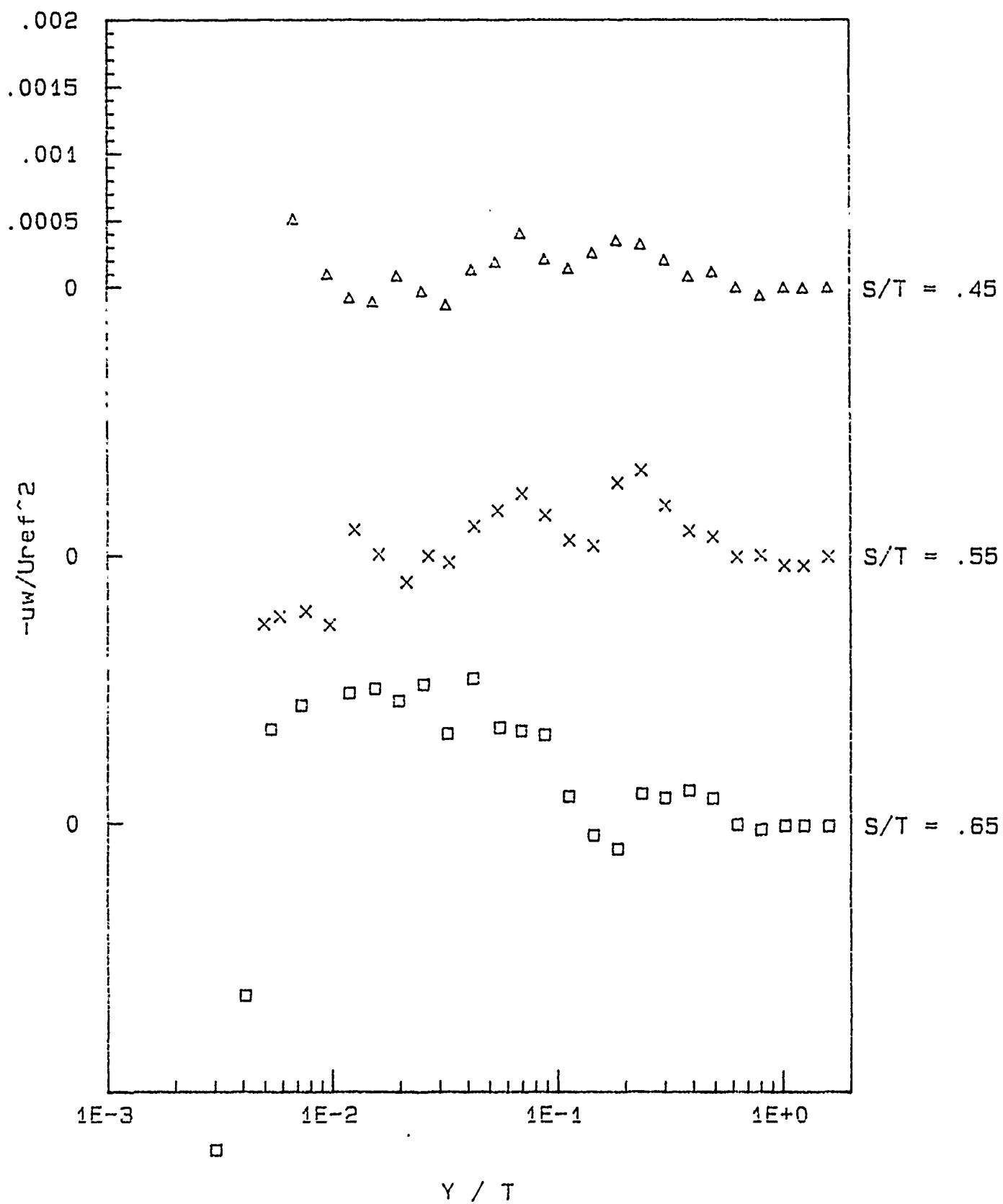


Figure F.5-8(b) Profiles of UW Reynolds shear stress, plane 8.

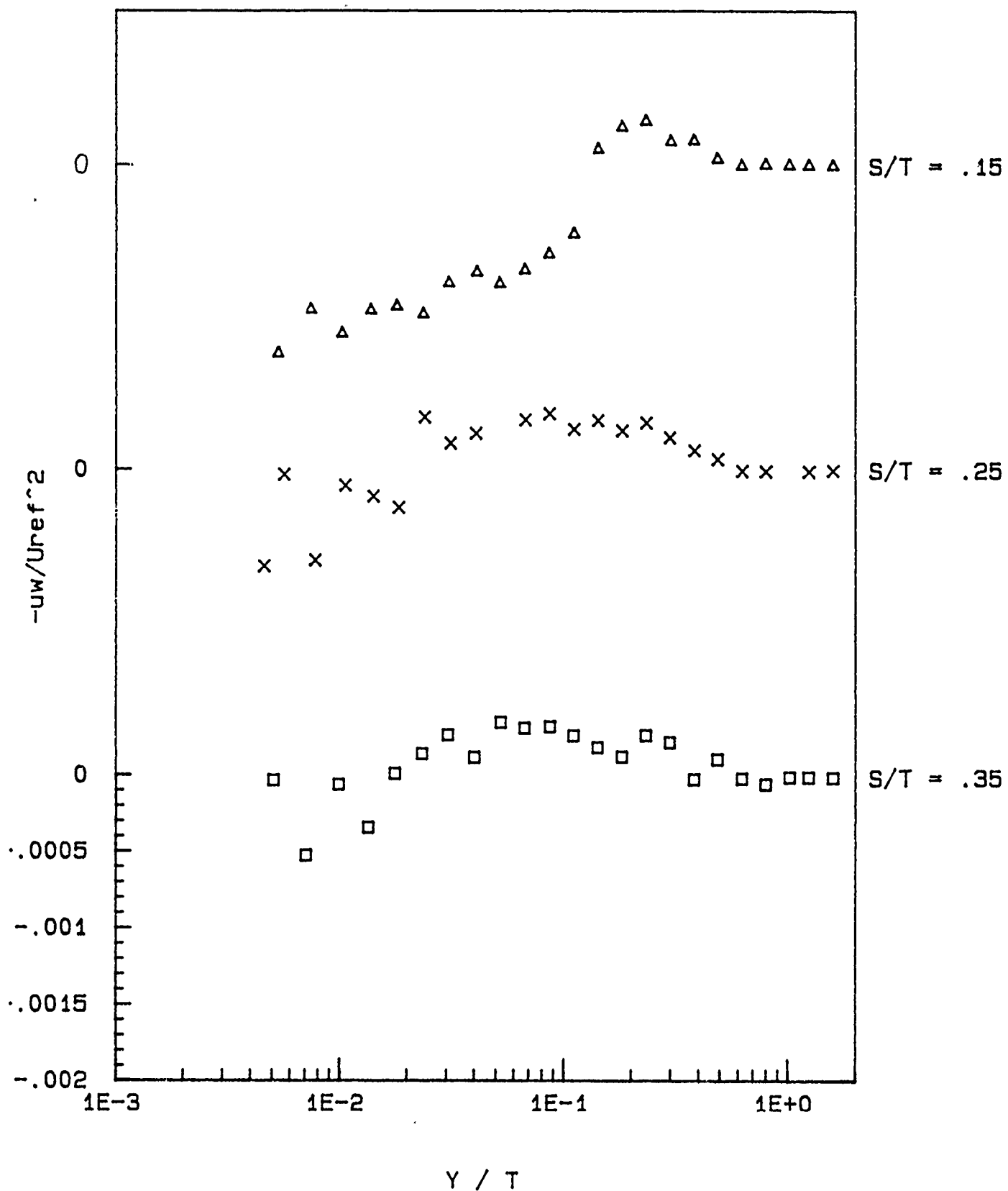


Figure F.5-8(c) Profiles of UW Reynolds shear stress, plane 8.

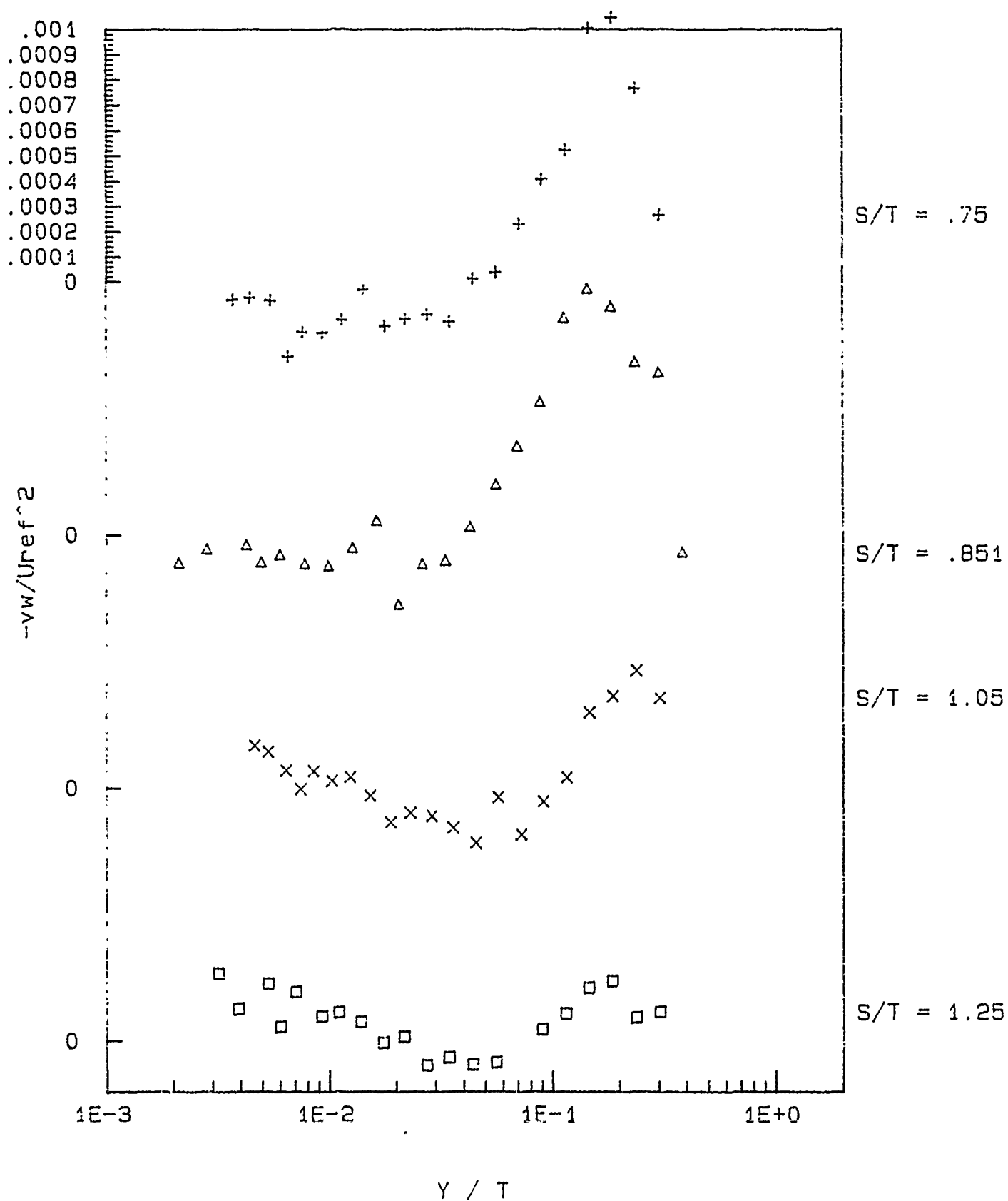


Figure F.5-9(a) Profiles of VW Reynolds shear stress, plane 8.

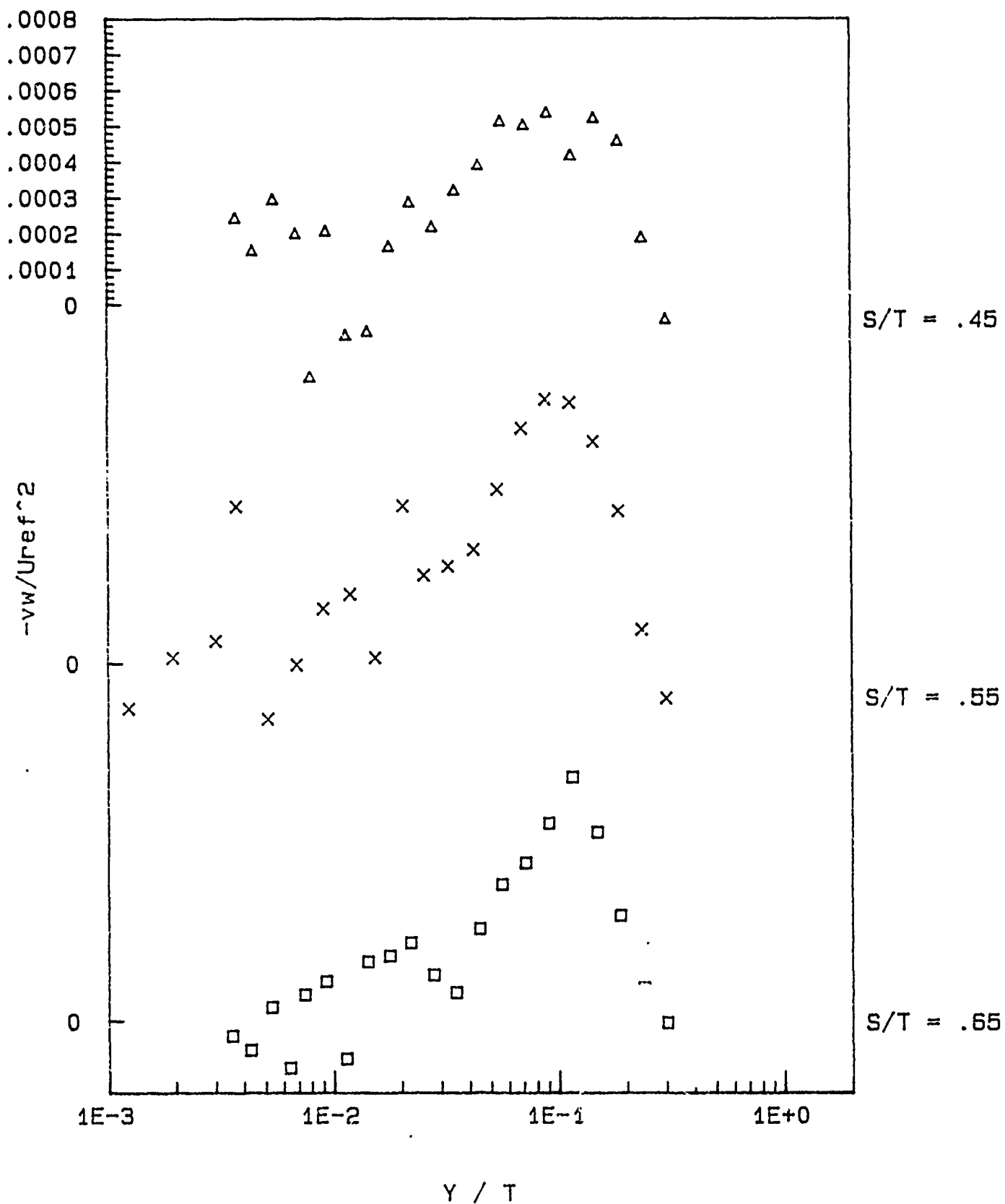


Figure F.5-9(b) Profiles of VW Reynolds shear stress, plane 8.

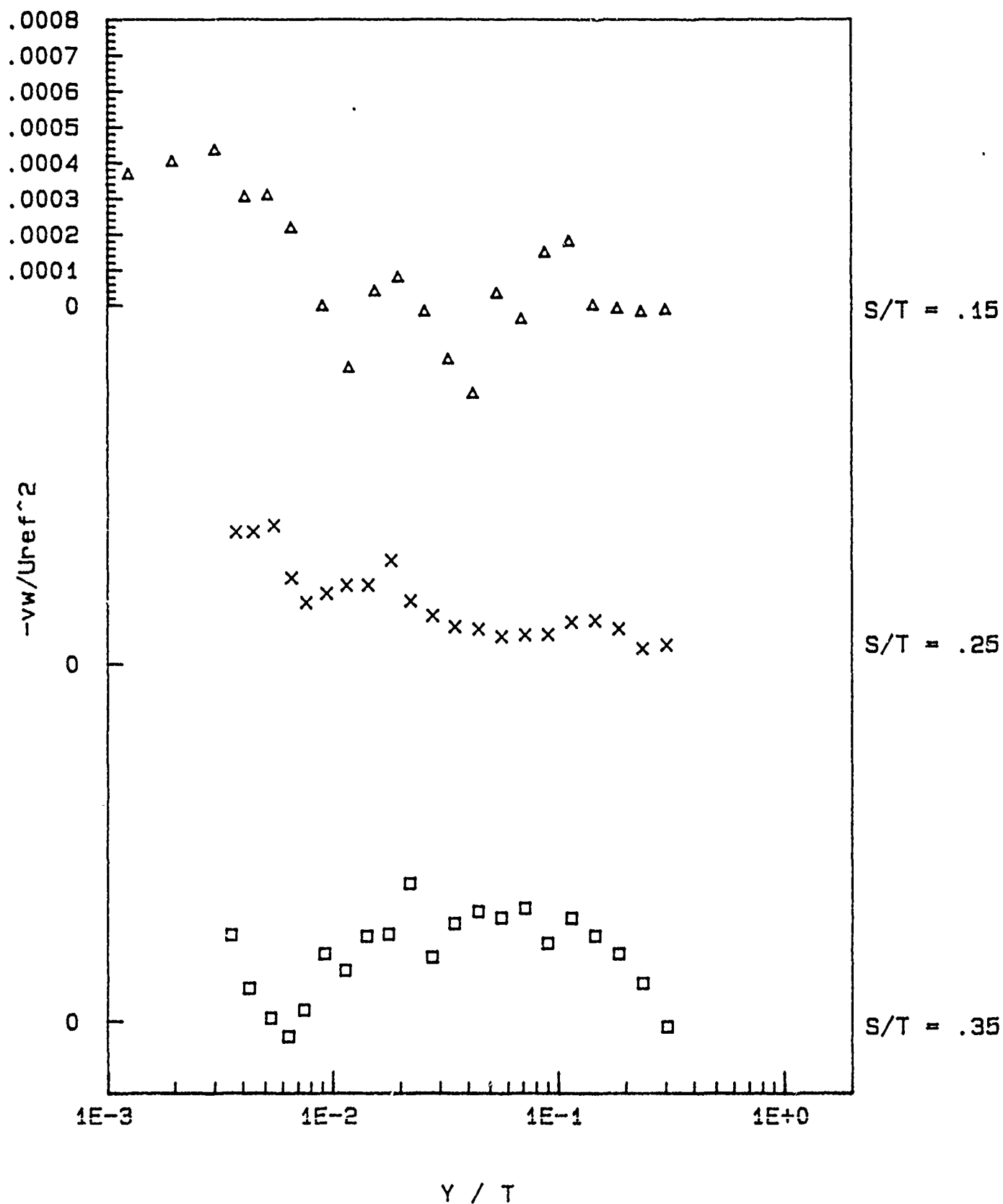


Figure F.5-9(c) Profiles of VW Reynolds shear stress, plane 8.

File E580770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.7

density (kilograms per meter cubed) = 1.107523

viscosity (meters squared per second) = 1.656791E-05

Atmospheric pressure (Pascals) = 94670

Velocity of undisturbed free stream (Uref, in m/s) = 27.771

Estimated momentum thickness at X/T = -2.146, Z/T=0 (s) = 4.087402E-03

Estimated momentum thickness Reynolds number = 6851.274

Location of traverse: X/T = 3.167 Z/T = -1.4601 (Plane 8, S/T = 1.25)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.3140E-01	1.1358E-02			1.9785E-03	5.7543E-05	7.1580E-02	2.2797E+00	
2.4788E-03	2.8937E-01	1.1053E-02			2.5174E-03	1.1385E-04	4.2906E-02	1.3884E+00	
4.2493E-03	3.9411E-01	8.6136E-03			3.5048E-03	4.3627E-04	-1.7655E-01	9.9372E-01	
6.3739E-03	4.5425E-01	6.1624E-03	-1.2560E-01	5.9817E-01	4.4713E-03	9.1622E-04	-1.1226E-01	4.0541E-01	-9.5120E-04
9.2068E-03	4.9536E-01	7.9003E-03	-9.7268E-02	9.1256E-02	5.0380E-03	1.3445E-03	5.8901E-03	1.0381E-01	-1.2166E-03
1.2748E-02	5.6131E-01	7.8658E-03	5.0226E-03	-1.0073E-01	6.5487E-03	1.6456E-03	7.6914E-02	1.4926E-01	-8.6722E-04
1.7351E-02	5.5167E-01	7.4805E-03	2.7767E-02	-2.7563E-01	7.4712E-03	1.8203E-03	1.0334E-01	1.5168E-02	-1.1221E-03
2.2663E-02	5.7994E-01	7.3436E-03	6.5124E-02	-3.1774E-01	7.8799E-03	1.9579E-03	1.4036E-01	-7.8564E-03	-9.6135E-04
2.7745E-02	6.0414E-01	6.9219E-03	3.7738E-02	-3.6062E-01	7.9019E-03	1.8999E-03	1.2871E-01	-1.9631E-02	-1.2607E-03
3.9306E-02	6.3926E-01	6.6939E-03	3.6140E-02	-3.3621E-01	1.1071E-02	1.8619E-03	1.9314E-01	1.2688E-02	-1.2082E-03
5.1346E-02	6.6712E-01	6.2585E-03	-3.0183E-02	-2.6696E-01	1.0952E-02	1.7932E-03	1.8451E-01	-6.4343E-02	-1.2260E-03
6.6218E-02	7.0032E-01	5.7128E-03	-7.6708E-02	-3.0501E-01	1.3911E-02	1.6575E-03	1.5252E-01	-1.6423E-02	-9.0050E-04
8.4986E-02	7.3205E-01	5.0122E-03	-8.3529E-02	-2.4578E-01	1.3895E-02	1.4923E-03	1.3697E-01	-2.1634E-02	-7.7458E-04
1.1048E-01	7.6155E-01	4.4318E-03	-2.9526E-03	-2.2171E-01	1.7497E-02	1.4703E-03	1.5196E-01	6.8256E-02	-5.9636E-04
1.4093E-01	7.9274E-01	3.7378E-03	-8.4750E-03	-2.7610E-01	2.1626E-02	1.4244E-03	2.3159E-02	-5.6309E-02	-7.3599E-04
1.8130E-01	8.2205E-01	3.6803E-03	-1.7772E-02	-3.8885E-01	2.2839E-02	1.4320E-03	2.3724E-02	-1.5209E-01	-8.7788E-04
2.3300E-01	8.5493E-01	3.6669E-03	-1.2442E-01	-3.7381E-01	2.3996E-02	1.4675E-03	1.0297E-01	-1.7049E-01	-8.6009E-04
2.9780E-01	8.9897E-01	3.1441E-03	-2.8994E-01	-3.1522E-01	2.7903E-02	1.2878E-03	2.1587E-01	-9.1283E-02	-7.7406E-04
3.8031E-01	9.5013E-01	2.1741E-03	-4.6805E-01	-1.6399E-01	2.8544E-02	9.7704E-04	4.5016E-01	2.6323E-01	-6.7081E-04
4.8654E-01	1.0021E+00	1.0134E-03	-9.8321E-01	7.6142E-01	3.0819E-02	5.4231E-04	6.8382E-01	7.6708E-01	-2.8580E-04
6.2252E-01	1.0311E+00	8.6114E-05	-1.8049E-01	1.1796E+00	2.3456E-02	1.1030E-04	1.1976E+00	2.8981E+00	1.0057E-05
7.9568E-01	1.0324E+00	2.1368E-05	1.4674E-01	-1.8435E-01	1.9950E-02	2.5826E-05	1.6720E-01	-1.2616E-01	1.2308E-05
1.0170E+00	1.0337E+00	1.6903E-05	1.4600E-01	-1.9007E-01	1.6079E-02	1.7517E-05	1.4026E-01	-1.2441E-01	1.0352E-05
1.2362E+00	1.0347E+00	1.6566E-05	9.8694E-02	-1.6998E-01	1.2987E-02	1.5264E-05	-1.6745E-02	-2.4087E-01	1.0384E-05
1.5903E+00	1.0328E+00	1.6443E-05	1.1663E-01	-2.2612E-01	1.0004E-02	1.4290E-05	-5.3862E-03	-2.7758E-01	1.0053E-05

Table F.5-1 Velocity measurements made at S/T = 1.25 with the UV system of the laser anemometer, plane 8

File E581770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.113182

viscosity (meters squared per second) = 1.645381E-05

Atmospheric pressure (Pascals) = 94930

Velocity of undisturbed free stream (Uref, in m/s) = 27.67145

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.090339E-03

Estimated momentum thickness Reynolds number = 6878.992

Location of traverse: $X/T = 3.187$ $Z/T = -1.2862$ (Plane 8, $S/T = 1.05$)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
7.0822E-04	1.9051E-01	8.5961E-03			1.0258E-03	5.3773E-05	1.1115E-01	2.0582E+00	
1.7705E-03	2.3079E-01	9.3643E-03			1.0158E-03	8.0901E-05	2.8337E-02	1.9430E+00	
2.6327E-03	3.1906E-01	8.0417E-03			1.1782E-03	1.8071E-04	-1.0087E-01	1.5713E+00	
3.8952E-02	3.7251E-01	8.1427E-03			1.9524E-03	3.5342E-04	-3.2751E-01	1.4890E+00	
5.6657E-03	4.3728E-01	8.1505E-03	-8.0868E-02	7.6648E-01	2.6977E-03	8.1713E-04	-1.6953E-01	8.0844E-01	-1.1108E-03
7.7904E-03	4.7199E-01	8.1827E-03	-2.3033E-02	9.5140E-02	4.3053E-03	1.2887E-03	-1.0691E-01	3.6029E-01	-1.0567E-03
1.0623E-02	5.0006E-01	7.9005E-03	2.4217E-02	-1.6924E-01	4.2786E-03	1.6340E-03	2.7225E-02	2.0477E-01	-1.1346E-03
1.4164E-02	5.2183E-01	7.6856E-03	4.8696E-02	-3.0347E-01	4.1845E-03	1.9079E-03	9.9273E-02	1.6174E-01	-1.3175E-03
1.8414E-02	5.4293E-01	7.3805E-03	1.2458E-01	-1.8588E-01	4.3712E-03	2.0163E-03	9.0875E-02	2.8539E-03	-1.2605E-03
2.4433E-02	5.7153E-01	7.2327E-03	3.7499E-02	-3.6064E-01	5.3333E-03	2.0656E-03	7.6327E-02	2.1771E-02	-1.2774E-03
3.1516E-02	5.9655E-01	7.3356E-03	4.7133E-02	-3.4776E-01	8.3904E-03	2.0879E-03	1.2535E-01	-3.2340E-02	-1.2155E-03
4.0722E-02	6.2806E-01	7.0682E-03	1.1439E-02	-3.3644E-01	9.6543E-03	2.0820E-03	1.4903E-01	-7.1786E-02	-1.3547E-03
5.2408E-02	6.5639E-01	6.5169E-03	-4.1744E-02	-4.1111E-01	9.4632E-03	2.0429E-03	1.5011E-01	-3.6258E-02	-1.1916E-03
6.7635E-02	6.9123E-01	6.1709E-03	-5.2550E-02	-2.5683E-01	1.2696E-02	1.9943E-03	1.8294E-01	6.5951E-02	-1.0676E-03
8.6756E-02	7.2010E-01	5.6639E-03	-9.5257E-02	-2.4752E-01	1.3666E-02	1.8068E-03	9.2515E-02	-3.7334E-02	-9.8866E-04
1.1154E-01	7.5327E-01	5.1327E-03	-9.6315E-02	-2.4361E-01	1.6557E-02	1.8242E-03	7.2962E-02	-4.9078E-02	-6.7219E-04
1.4235E-01	7.8020E-01	4.4380E-03	-6.6697E-02	-2.1957E-01	2.0270E-02	1.7827E-03	5.2088E-02	-1.6255E-02	-8.1373E-04
1.8237E-01	8.0825E-01	4.2727E-03	-5.4918E-02	-2.4118E-01	2.3038E-02	1.7611E-03	6.1656E-02	-8.4031E-02	-7.6004E-04
2.3336E-01	8.4603E-01	4.1820E-03	-1.1320E-01	-3.7059E-01	2.7206E-02	1.7387E-03	1.1536E-01	-1.9130E-02	-9.4509E-04
2.9851E-01	8.9105E-01	3.6312E-03	-2.6503E-01	-2.5193E-01	3.1372E-02	1.5079E-03	2.6603E-01	1.1045E-02	-7.7678E-04
3.8173E-01	9.4570E-01	2.4975E-03	-5.9592E-01	1.2080E-01	3.0152E-02	1.0538E-03	4.2396E-01	1.1897E-01	-6.8569E-04
4.8831E-01	1.0023E+00	1.0535E-03	-9.8651E-01	8.3561E-01	2.9976E-02	5.8167E-04	6.5169E-01	6.4604E-01	-3.7572E-04
6.2394E-01	1.0344E+00	7.6626E-05	-2.3685E-01	1.8010E+00	2.4935E-02	1.1308E-04	1.1480E+00	2.5515E+00	4.0395E-06
7.9710E-01	1.0325E+00	2.0943E-05	-4.1135E-02	-2.3946E-01	1.5589E-02	2.2928E-05	1.5199E-01	-1.8258E-01	9.2133E-06
1.0184E+00	1.0349E+00	1.9031E-05	-9.7715E-02	-1.9448E-01	1.3097E-02	1.4701E-05	5.8357E-02	-3.1125E-01	9.6694E-06
1.2376E+00	1.0345E+00	1.6602E-05	-1.0947E-01	-2.9264E-01	8.7972E-03	1.5275E-05	8.6178E-02	-3.0767E-01	9.2449E-06
1.5917E+00	1.0344E+00	1.4299E-05	-1.6084E-01	-2.6858E-01	4.9276E-03	1.3211E-05	2.4726E-01	-1.9740E-01	7.8646E-06

Table F.5-2 Velocity measurements made at $S/T = 1.05$ with the UV system of the laser anemometer, plane 8

File E582770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.8

density (kilograms per meter cubed) = 1.113932

viscosity (meters squared per second) = 1.64342E-05

Atmospheric pressure (Fascals) = 94930

Velocity of undisturbed free stream (Uref, in m/s) = 27.64529

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091113E-03

Estimated momentum thickness Reynolds number = 6881.991

Location of traverse; X/T = 3.187 Z/T = -1.0802 (Plane 8, S/T = 0.85)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	1.8221E-01	7.7433E-03			1.2418E-03	2.7362E-05	-3.7266E-01	2.7985E+00	
2.3017E-03	2.5269E-01	8.5966E-03			1.5260E-03	8.0349E-05	-8.8094E-03	1.7723E+00	
3.1670E-03	3.2513E-01	7.8606E-03			1.3857E-03	2.2369E-04	-1.0797E-01	1.5294E+00	
4.0722E-02	3.6372E-01	8.8174E-03			1.7200E-03	3.9437E-04	-1.9295E-01	1.1596E+00	
4.9575E-03	3.9056E-01	9.8461E-03	9.6767E-02	4.5183E-01	1.9724E-03	5.9495E-04	-1.9950E-01	8.7072E-01	-5.6496E-04
6.7230E-03	4.3642E-01	9.3828E-03	4.5214E-02	4.2473E-02	2.6133E-03	1.1403E-03	-9.9070E-02	5.2954E-01	-8.6757E-04
8.8527E-03	4.6016E-01	9.3027E-03	9.4792E-02	-1.951E-01	4.2681E-03	1.4522E-03	-4.3589E-02	2.9259E-01	-7.4578E-04
1.1686E-02	4.7860E-01	9.1319E-03	7.8727E-02	-2.5344E-01	3.5655E-03	1.7082E-03	-1.6024E-02	1.6277E-01	-1.1263E-03
1.5227E-02	5.0348E-01	8.6072E-03	1.2425E-01	-3.0117E-01	5.4132E-03	2.0211E-03	6.9163E-02	5.3482E-02	-1.2784E-03
1.9476E-02	5.3041E-01	8.4532E-03	1.6879E-01	-3.7029E-01	7.3512E-03	2.1125E-03	1.7420E-01	3.8101E-02	-1.3869E-03
2.5142E-02	5.5419E-01	8.7760E-03	1.5383E-01	-3.9490E-01	1.1395E-02	2.2718E-03	1.5151E-01	2.1851E-02	-1.2663E-03
3.2224E-02	5.8148E-01	8.8474E-03	1.4134E-01	-4.3103E-01	1.5042E-02	2.3062E-03	9.9991E-02	-3.7731E-02	-1.3739E-03
4.1785E-02	6.1254E-01	9.1307E-03	4.6181E-02	-4.6599E-01	1.7876E-02	2.3656E-03	1.3333E-01	-1.7266E-01	-1.0339E-03
5.4533E-02	6.4094E-01	8.7309E-03	-3.2889E-02	-4.6434E-01	2.4560E-02	2.5112E-03	1.4030E-01	-8.0141E-02	-1.2417E-03
6.8697E-02	6.6309E-01	7.8235E-03	-7.4486E-02	-4.5614E-01	2.9638E-02	2.6759E-03	1.5022E-01	-9.6268E-02	-1.3198E-03
8.8527E-02	6.8945E-01	6.9773E-03	-1.0414E-01	-3.2739E-01	3.7105E-02	2.9261E-03	1.2475E-01	-1.4473E-01	-1.1951E-03
1.1225E-01	7.1047E-01	6.3051E-03	-8.2149E-02	-2.3074E-01	4.5248E-02	3.0402E-03	9.5120E-02	-1.8938E-01	-1.3790E-03
1.4377E-01	7.2921E-01	5.7830E-03	8.2993E-03	-2.8258E-01	5.0079E-02	3.2805E-03	1.4484E-01	-2.1242E-01	-1.5735E-03
1.8343E-01	7.5637E-01	6.6005E-03	1.5901E-03	-3.8768E-01	5.2887E-02	3.5100E-03	1.7792E-01	-2.1155E-01	-1.5703E-03
2.3442E-01	7.9369E-01	7.2085E-03	-1.5460E-01	-4.0890E-01	4.8749E-02	3.2200E-03	3.6915E-01	-5.1811E-02	-1.6274E-03
2.9958E-01	8.6385E-01	5.5430E-03	-4.6287E-01	-2.5535E-02	4.0152E-02	2.4538E-03	5.0257E-01	3.4273E-01	-1.2702E-03
3.8279E-01	9.3922E-01	3.0036E-03	-5.6978E-01	1.6534E-02	3.6654E-02	1.3188E-03	5.2150E-01	3.1324E-01	-7.2030E-04
4.8973E-01	1.0037E+00	1.0604E-03	-1.0262E+00	9.8942E-01	3.4373E-02	5.8884E-04	7.3603E-01	7.6054E-01	-3.7389E-04
6.2500E-01	1.0325E+00	6.0420E-05	1.8716E-01	5.3698E-01	2.4494E-02	9.6053E-05	9.3738E-01	2.0430E+00	2.4299E-06
7.9816E-01	1.0322E+00	2.0677E-05	-4.8578E-02	-2.0961E-01	1.6970E-02	2.1492E-05	1.3923E-01	-1.5765E-01	6.9656E-06
1.0195E+00	1.0346E+00	1.7349E-05	-1.4083E-01	-2.8893E-01	1.1419E-02	1.4088E-05	2.8753E-02	-2.0535E-01	7.8979E-06
1.2387E+00	1.0341E+00	1.5789E-05	-2.2334E-01	-2.8070E-01	9.5098E-03	1.5178E-05	4.4837E-02	-2.4558E-01	1.1664E-05
1.5928E+00	1.0337E+00	1.7059E-05	-1.4948E-01	-2.9724E-01	3.1415E-03	1.3653E-05	1.4800E-01	-2.9738E-01	1.1449E-05

Table F.5-3 Velocity measurements made at S/T = 0.85 with the UV system of the laser anemometer, plane 8

File E583770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.7

density (kilograms per meter cubed) = 1.108517

viscosity (meters squared per second) = 1.655304E-05

Atmospheric pressure (Fascals) = 94755

Velocity of undisturbed free stream (Uref, in m/s) = 27.68043

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.090074E-03

Estimated momentum thickness Reynolds number = 6839.527

Location of traverse; X/T = 3.187 Z/T = -.98015 (Plane 8, S/T = 0.75)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	2.1234E-01	7.2260E-03			4.5183E-04	3.4566E-05	3.4179E-02	1.9857E+00	
1.7705E-03	2.4359E-01	7.9230E-03			1.6954E-04	4.8993E-05	-1.5327E-01	2.0639E+00	
2.8329E-03	3.7417E-01	7.9470E-03			-1.2566E-05	3.2844E-04	-2.6707E-01	1.3912E+00	
3.8952E-03	4.2350E-01	1.2173E-02	6.6419E-02	6.1340E-01	3.3384E-04	5.8050E-04	-2.6859E-01	1.0320E+00	-5.9889E-04
4.9575E-03	4.5665E-01	1.2181E-02	1.6033E-02	3.0124E-02	6.6729E-04	9.3659E-04	-1.9822E-01	7.4612E-01	-9.8269E-04
7.0822E-03	4.8222E-01	1.2253E-02	3.5410E-02	-3.0544E-01	8.5361E-04	1.3761E-03	-1.3089E-01	4.4213E-01	-8.2618E-04
8.8527E-03	5.1361E-01	1.1701E-02	4.1868E-02	-3.1115E-01	1.5254E-03	1.7153E-03	-3.4353E-02	1.3933E-01	-9.7203E-04
1.1686E-02	5.4419E-01	1.1395E-02	5.2588E-02	-4.2765E-01	5.3829E-03	2.1544E-03	1.3699E-01	1.4795E-01	-1.6878E-03
1.5227E-02	5.6966E-01	1.1482E-02	3.1699E-03	-4.8529E-01	6.0233E-03	2.1832E-03	1.6164E-01	1.6136E-02	-1.6147E-03
1.9476E-02	6.0061E-01	1.1368E-02	-1.1630E-02	-5.6914E-01	9.6421E-03	2.2479E-03	1.6984E-01	-3.8623E-02	-1.5760E-03
2.5496E-02	6.2325E-01	1.1773E-02	-7.9371E-02	-6.2091E-01	1.4673E-02	2.2823E-03	1.8528E-01	-5.8300E-02	-1.5061E-03
3.2224E-02	6.5328E-01	1.1062E-02	-1.4670E-01	-6.5543E-01	1.5900E-02	2.3269E-03	1.1630E-01	3.2525E-03	-1.7486E-03
4.1785E-02	6.8034E-01	1.0780E-02	-2.7155E-01	-5.1885E-01	2.2891E-02	2.3803E-03	1.6372E-01	1.0069E-01	-1.3556E-03
5.3470E-02	7.0911E-01	9.0181E-03	-3.7828E-01	-3.7145E-01	2.9658E-02	2.3987E-03	5.0704E-02	-5.5318E-02	-1.3325E-03
6.8697E-02	7.2531E-01	7.7417E-03	-4.1065E-01	-1.9174E-01	3.5117E-02	2.7676E-03	-8.6169E-02	9.4414E-02	-6.6153E-04
8.7465E-02	7.3638E-01	6.2143E-03	-3.2085E-01	-9.0699E-02	4.0858E-02	3.1341E-03	-8.9532E-02	-1.0687E-01	-4.4083E-04
1.1225E-01	7.3706E-01	5.1288E-03	-1.4102E-01	-2.2303E-01	4.8827E-02	3.8774E-03	-1.6218E-01	-1.5677E-02	-2.7140E-04
1.4341E-01	7.3370E-01	5.3066E-03	2.5046E-02	-1.1931E-01	5.0081E-02	4.4464E-03	-1.0193E-01	-1.7417E-01	-1.1084E-04
1.8343E-01	7.4337E-01	5.8365E-03	8.5788E-02	-2.2766E-01	4.8007E-02	4.5068E-03	2.7292E-02	-2.9229E-01	-9.8499E-04
2.3442E-01	7.8336E-01	7.5005E-03	-7.9343E-02	-4.5314E-01	4.4777E-02	3.7246E-03	2.4980E-01	-1.5663E-01	-1.4801E-03
2.9958E-01	8.6360E-01	6.0819E-03	-4.6118E-01	-1.3486E-01	3.8377E-02	2.7235E-03	5.1343E-01	3.9187E-01	-1.4613E-03
3.8279E-01	9.4884E-01	2.8190E-03	-6.2242E-01	6.8168E-02	3.5185E-02	1.3397E-03	5.5419E-01	4.3850E-01	-6.6768E-04
4.8902E-01	1.0097E+00	9.0922E-04	-1.1950E+00	1.5305E+00	3.3741E-02	5.8478E-04	7.2101E-01	8.4218E-01	-2.7919E-04
6.2500E-01	1.0340E+00	5.1920E-05	2.6984E-01	3.8070E-01	2.3570E-02	8.7977E-05	9.4190E-01	2.0658E+00	9.3527E-06
7.9816E-01	1.0366E+00	3.4516E-05	-1.2630E-01	-3.6314E-02	1.7612E-02	3.7383E-05	1.2839E-01	1.3820E-01	2.4626E-05
1.0195E+00	1.0358E+00	2.2789E-05	-1.5762E-01	3.3859E-02	1.1554E-02	2.9701E-05	5.2301E-02	3.1913E-02	1.8946E-05
1.2387E+00	1.0363E+00	2.4085E-05	-1.6156E-01	6.4367E-02	9.8364E-03	1.6638E-05	5.2107E-02	-2.0164E-01	1.4586E-05
1.5928E+00	1.0342E+00	1.3828E-05	-1.9605E-01	-1.8425E-01	2.7073E-03	1.5268E-05	1.5644E-01	-1.1774E-01	1.0266E-05

Table F.5-4 Velocity measurements made at S/T = 0.75 with the UV system of the laser anemometer, plane 8

File E584770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.1

density (kilograms per meter cubed) = 1.10446

viscosity (meters squared per second) = 1.663106E-05

Atmospheric pressure (Pascals) = 94535

Velocity of undisturbed free stream (Uref, in m/s) = 27.63593

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09139E-03

Estimated momentum thickness Reynolds number = 6798.688

Location of traverse: X/T = 3.187 Z/T = -.88015 (Plane 8, S/T = 0.65)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	2.6838E-01	1.6738E-02	4.8941E-01	3.9698E-01	-8.7955E-04	1.6090E-04	-1.9160E-01	1.5162E+00	
1.5935E-03	2.9584E-01	1.8246E-02	2.9760E-01	1.5845E-01	-1.1374E-03	2.5761E-04	-2.1506E-01	1.6544E+00	
2.6558E-03	3.7893E-01	1.6476E-02			-1.8093E-03	5.3284E-04	-2.4525E-01	1.2984E+00	-7.2400E-04
4.0722E-03	1.7512E-01	1.6117E-02	-1.5558E-01	-4.7649E-01	-2.3062E-03	9.3631E-04	-2.3626E-01	6.4570E-01	-2.3826E-04
5.4887E-03	5.2000E-01	1.4402E-02	-2.5051E-01	-3.9043E-01	-2.3772E-03	1.2664E-03	-1.0699E-01	3.4531E-01	
7.6133E-03	5.7492E-01	1.1202E-02	-2.4053E-01	1.0285E-01	-1.0767E-03	1.8040E-03	2.3930E-02	3.4100E-01	-1.6799E-03
1.0446E-02	1.1369E-01	1.0448E-02	-2.7687E-01	-1.5236E-01	-9.4076E-04	2.1189E-03	1.0308E-01	1.3248E-01	-1.5131E-03
1.3987E-02	6.5395E-01	9.5672E-03	-2.5825E-01	-2.5646E-01	2.0441E-03	2.2081E-03	2.8201E-01	1.0417E-01	-1.775E-03
1.8237E-02	6.8378E-01	9.0627E-03	-3.6227E-01	-4.4289E-02					
2.3902E-02	7.1192E-01	9.1172E-03	-5.0364E-01	7.7235E-02	3.8730E-03	2.1750E-03	2.5806E-01	5.0995E-03	
3.0984E-02	7.4418E-01	8.1892E-03	-5.3829E-01	2.3293E-01	3.9662E-03	2.2119E-03	3.0773E-01	2.5703E-01	
4.0545E-02	7.7494E-01	6.5850E-03	-6.0839E-01	5.5540E-01	7.8161E-03	2.2702E-03	1.7933E-01	1.8173E-01	-9.00E-04
5.3293E-02	7.9345E-01	5.5831E-03	-5.1449E-01	3.6851E-01	9.5304E-03	2.5057E-03	-6.0475E-03	1.3306E-01	-3.7309E-04
6.7458E-02	7.9616E-01	4.9661E-03	-4.0601E-01	3.0113E-01	9.4126E-03	2.8867E-03	-8.2046E-02	2.1827E-02	
8.6225E-02	7.9003E-01	4.7260E-03	-1.7734E-01	-8.7227E-02	7.4729E-03	3.5242E-03	-9.4922E-02	-1.3728E-01	2.1108E-04
1.1101E-01	7.7353E-01	4.8151E-03	-4.6010E-02	-2.0511E-01	8.4380E-03	4.2343E-03	-3.1994E-02	-3.3124E-01	-1.7944E-05
1.4217E-01	7.6323E-01	5.6474E-03	-3.3605E-02	-2.0673E-01	8.0007E-03	4.3625E-03	9.7088E-02	-2.9342E-01	-4.1149E-04
1.8219E-01	7.6675E-01	6.4391E-03	-3.3046E-02	-2.9753E-01	1.2630E-02	4.2503E-03	2.5225E-01	-4.5455E-02	
2.3318E-01	8.0334E-01	7.1472E-03	-1.2479E-01	-4.0674E-01	1.8090E-02	3.3929E-03	3.3532E-01	1.0413E-01	-1.4120E-03
2.9834E-01	8.8002E-01	5.7062E-03	-5.0633E-01	-1.1582E-01	2.4422E-02	2.2987E-03	5.0714E-01	3.6013E-01	-1.2028E-03
3.8155E-01	9.5761E-01	2.5277E-03	-6.4683E-01	6.7644E-02	3.6708E-02	1.8560E-03	5.1209E-01	3.9097E-01	-2.0814E-04
4.8955E-01	1.0137E+00	7.8098E-04	-1.1594E+00	1.4213E+00	3.0080E-02	4.8517E-04	7.5419E-01	7.8852E-01	-2.6911E-04
6.2376E-01	1.0351E+00	4.7507E-05	1.8050E-01	4.2587E-01	2.1549E-02	6.9813E-05	6.6866E-01	1.2016E+00	5.1950E-06
7.9692E-01	1.0363E+00	2.0674E-05	-5.9124E-02	-1.9663E-01	1.8070E-02	2.2369E-05	1.1813E-01	-1.7330E-01	1.0494E-05
1.0182E+00	1.0373E+00	1.4815E-05	-1.4365E-01	-1.7556E-01	1.3248E-02	1.6870E-05	9.7345E-02	-2.1480E-01	8.9705E-06
1.2374E+00	1.0370E+00	1.5751E-05	-1.6085E-01	-1.4350E-01	1.1517E-02	1.5835E-05	6.2156E-02	-2.2619E-02	9.8029E-06
1.5915E+00	1.0357E+00	1.2768E-05	-2.2717E-01	-1.2977E-01	5.0771E-03	1.4953E-05	1.5913E-01	-7.8700E-02	8.7976E-06

Table F.5-5 Velocity measurements made at S/T = 0.65 with the UV system of the laser anemometer, plane 8

File E585770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.102318

viscosity (meters squared per second) = 1.665908E-05

Atmospheric pressure (Pascals) = 94320

Velocity of undisturbed free stream (Uref, in m/s) = 27.60207

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092393E-03

Estimated momentum thickness Reynolds number = 6780.597

Location of traverse: X/T = 3.187 Z/T = -.78015 (Plane 8, S/T = 0.55)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	2.8740E-01	1.1751E-02	7.8496E-01	4.3621E+00	1.4676E-03	4.8423E-05	2.9959E-02	2.6240E+00	
1.9476E-03	3.5647E-01	1.3706E-02	1.2429E-01	3.1606E+00	6.9909E-04	9.3155E-05	-2.1944E-01	2.3797E+00	
2.4788E-03	4.0504E-01	1.2505E-02			7.3857E-04	1.4753E-04	-2.0530E-01	2.3714E+00	
4.6034E-03	5.4693E-01	1.2106E-02	-3.7608E-01	5.8581E-01	-1.2544E-04	8.3698E-04	-2.2720E-01	1.0024E+00	-7.4672E-04
5.6657E-03	5.9057E-01	1.1290E-02	-3.7726E-01	3.3796E-01	-5.3707E-04	1.5295E-03	-1.6733E-02	3.1470E-01	-6.5026E-04
8.1445E-03	6.2642E-01	1.0295E-02	-3.1982E-01	-7.1434E-02	4.6660E-04	1.9087E-03	7.8965E-02	1.3713E-01	-1.6917E-03
9.5639E-03	6.5420E-01	9.2108E-03	-2.5981E-01	-8.9169E-03	1.1072E-03	2.0516E-03	1.2896E-01	2.1338E-02	-1.9530E-03
1.3102E-02	6.8873E-01	8.2885E-03	-2.1768E-01	-1.4247E-01	1.4226E-03	2.1869E-03	1.4556E-01	5.0477E-02	-1.7367E-03
1.5935E-02	7.1220E-01	8.0542E-03	-3.1966E-01	1.6643E-02	1.7932E-03	2.1576E-03	3.1030E-01	1.2143E-01	-1.4662E-03
2.0184E-02	7.4502E-01	7.2363E-03	-2.8143E-01	-4.8738E-02	2.2556E-03	2.1816E-03	3.4383E-01	1.1154E-01	-1.3359E-03
2.5850E-02	7.6775E-01	6.4099E-03	-3.3237E-01	-5.8522E-03	-8.3364E-05	2.0216E-03	2.3532E-01	1.4397E-01	-1.1619E-03
3.2932E-02	7.9789E-01	5.4395E-03	-3.4663E-01	3.9899E-02	1.2809E-03	1.8822E-03	2.3780E-01	1.5411E-01	-8.6932E-04
4.2493E-02	8.2519E-01	4.4339E-03	-2.4521E-01	4.9472E-02	1.8562E-03	1.8840E-03	1.4618E-01	2.8388E-01	-4.1980E-04
5.4178E-02	8.3641E-01	3.7701E-03	-1.0154E-01	-4.9597E-02	-1.2499E-03	2.0440E-03	-2.7415E-02	8.4059E-02	-9.0544E-05
6.9405E-02	8.3815E-01	3.6715E-03	-1.0620E-01	-1.5243E-01	-7.9085E-04	2.3259E-03	-1.2726E-01	1.5649E-01	2.4841E-04
8.8173E-02	8.3100E-01	3.8947E-03	-1.3777E-01	-1.7385E-01	-2.2698E-03	2.6364E-03	-7.7758E-02	-9.1044E-02	3.3547E-04
1.1296E-01	8.2163E-01	4.5376E-03	-1.1483E-01	-2.1183E-01	-5.4331E-03	2.9263E-03	-5.0300E-02	-1.2188E-01	5.8562E-06
1.4412E-01	8.1748E-01	5.4495E-03	-1.5413E-01	-3.1792E-01	-6.2011E-03	2.8572E-03	5.0199E-02	-5.0441E-02	-2.6714E-04
1.8414E-01	8.2971E-01	6.1518E-03	-2.6568E-01	-2.9922E-01	-2.4947E-03	2.4957E-03	1.6959E-01	-6.1901E-03	-6.6455E-04
2.3796E-01	8.6252E-01	5.8355E-03	-4.1525E-01	-1.4613E-01	6.2867E-03	1.9866E-03	3.3883E-01	1.1105E-01	-9.5615E-04
3.0064E-01	9.1685E-01	4.2140E-03	-6.1246E-01	1.8576E-01	1.7755E-02	1.5124E-03	4.5691E-01	3.9873E-01	-9.9677E-04
3.8350E-01	9.7073E-01	2.0638E-03	-6.8553E-01	1.4537E-01	2.5841E-02	9.3113E-04	5.6425E-01	4.8638E-01	-5.8511E-04
4.8973E-01	1.0139E+00	7.9353E-04	-1.2371E+00	1.7549E+00					
6.2571E-01					1.8290E-02	5.2795E-05	4.5145E-01	4.8691E-01	
7.9887E-01	1.0353E+00	2.8539E-05	-2.7543E-02	-1.5227E-01	1.6363E-02	2.0624E-05	1.4305E-01	-1.5269E-01	1.4397E-05
1.0202E+00	1.0340E+00	2.3202E-05	-8.8283E-02	-1.3244E-01	1.4400E-02	1.5092E-05	6.1047E-02	-1.8486E-01	1.2821E-05
1.2394E+00	1.0354E+00	8.9775E-05	-1.5410E-01	2.3157E-01					
1.5935E+00	1.0344E+00	2.1502E-05	-4.8847E-02	-7.9613E-02	7.2911E-03	1.4509E-05	6.7801E-02	-2.8575E-01	1.3051E-05

Table F.5-6 Velocity measurements made at S/T = 0.55 with the UV system of the laser anemometer; plane 8

File E586770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.3

density (kilograms per meter cubed) = 1.100333

viscosity (meters squared per second) = 1.670207E-05

Atmospheric pressure (Pascals) = 94245

Velocity of undisturbed free stream (Uref, in m/s) = 27.61582

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.091986E-03

Estimated momentum thickness Reynolds number = 6765.842

Location of traverse; X/T = 3.187 Z/T = -.69015 (Plane 8, S/T = 0.45)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	2.6477E-01	1.7447E-02			2.7383E-04	8.1528E-05	-9.7745E-01	2.7901E+00	
1.7705E-03	3.2495E-01	1.9534E-02			8.0494E-04	2.1477E-04	-1.5282E-01	2.0746E+00	
2.8329E-03					9.3888E-04	5.8873E-04	-1.5141E-01	9.4890E-01	
4.2493E-03	5.5191E-01	1.0159E-02			1.5328E-04	1.0954E-03	-2.4877E-01	7.4689E-01	
5.6657E-03	6.0291E-01	8.3709E-03			1.0248E-03	1.5849E-03	-1.0327E-01	2.4136E-01	
7.7904E-03	6.4874E-01	9.6512E-03	-3.2009E-01	6.5043E-01	1.0557E-03	2.1285E-03	4.2252E-02	4.0054E-02	-2.2567E-03
1.0622E-02	6.7869E-01	9.3455E-03	-1.8982E-01	-8.1466E-02	3.2512E-03	2.2971E-03	1.5837E-01	7.7693E-03	-2.0665E-03
1.4164E-02	7.1728E-01	8.7456E-03	-2.1594E-01	-1.6718E-01	4.0801E-03	2.2855E-03	2.7235E-01	5.3119E-02	-1.7068E-03
1.8414E-02	7.5034E-01	8.5198E-03	-2.4563E-01	-1.4357E-01	3.4936E-03	2.1726E-03	2.4430E-01	1.0750E-01	-1.3504E-03
2.4079E-02	7.8068E-01	7.4699E-03	-3.0967E-01	-1.6467E-01	3.2962E-03	1.9973E-03	3.4970E-01	2.6531E-01	-1.2576E-03
3.1161E-02	8.1342E-01	6.1524E-03	-3.0507E-01	-7.7567E-02	2.6166E-03	1.7619E-03	3.0422E-01	1.7573E-01	-1.0754E-03
4.0722E-02	8.4713E-01	4.6798E-03	-3.2442E-01	9.0382E-02	6.3756E-03	1.6772E-03	2.4946E-01	3.3758E-01	-5.6150E-04
5.2408E-02	8.6054E-01	3.8373E-03	-2.1434E-01	1.5541E-01	4.6946E-03	1.5395E-03	1.4244E-01	1.6545E-01	-1.8465E-04
6.7635E-02	8.6728E-01	3.0733E-03	-8.6210E-02	-1.3759E-01	6.0370E-03	1.7420E-03	-1.5725E-01	3.2173E-01	2.2107E-05
8.6402E-02	8.6228E-01	2.9142E-03	-4.4509E-02	-1.8872E-01	4.1938E-03	1.8701E-03	-1.0547E-01	-3.6549E-02	-7.9978E-05
1.1119E-01	8.5686E-01	3.1646E-03	-1.1651E-01	-1.8713E-01	2.6984E-03	2.0438E-03	-8.8241E-02	-7.5735E-02	-1.8680E-04
1.4235E-01	8.5998E-01	3.7357E-03	-1.8033E-01	-1.8884E-01					
1.8237E-01	8.7327E-01	3.9724E-03	-2.6860E-01	-1.7718E-01	1.9023E-03	1.7774E-03	7.4790E-02	6.9971E-02	-4.8762E-04
2.3336E-01	8.9948E-01	3.6988E-03	-4.2342E-01	-1.3942E-01	7.1860E-03	1.4436E-03	1.7143E-01	1.2604E-01	-7.0550E-04
2.9887E-01	9.3420E-01	2.9348E-03	-5.6384E-01	1.5772E-02	1.5979E-02	1.1216E-03	3.1790E-01	3.0973E-01	-5.2505E-04
3.8173E-01	9.7909E-01	1.5773E-03	-8.0925E-01	3.7987E-01	2.0992E-02	6.9011E-04	6.0753E-01	7.1631E-01	-5.0536E-04
4.8796E-01	1.0194E+00	4.1534E-04	-1.1787E+00	1.5585E+00	2.3832E-02	2.9546E-04	8.7204E-01	1.3334E+00	-1.9954E-04
6.2394E-01	1.0307E+00	4.4138E-05	1.0685E-01	2.2519E-01	1.7974E-02	5.3197E-05	3.5253E-01	3.2115E-01	9.2391E-06
7.9710E-01	1.0318E+00	2.8665E-05	5.7956E-04	-1.0813E-01	1.6532E-02	2.1248E-05	1.2308E-01	-1.7660E-01	1.4586E-05
1.0184E+00	1.0325E+00	2.0681E-05	-1.3853E-01	-1.1954E-03	1.4631E-02	1.6209E-05	-6.6695E-02	-2.2904E-01	1.1909E-05
1.2376E+00	1.0317E+00	2.0929E-05	-1.5206E-01	-5.7232E-02	1.0956E-02	1.5259E-05	9.6509E-02	-2.6534E-01	1.2720E-05
1.5917E+00	1.0319E+00	1.8874E-05	-2.4864E-01	8.7483E-03	6.7607E-03	1.5704E-05	2.2430E-02	-2.6960E-01	1.2617E-05

Table F.5-7 Velocity measurements made at S/T = 0.45 with the UV system of the laser anemometer, plane 8

File E587770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.8

density (kilograms per meter cubed) = 1.106835

viscosity (meters squared per second) = 1.65825E-05

Atmospheric pressure (Pascals) = 94643

Velocity of undisturbed free stream (Uref, in m/s) = 27.68627

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.059901E-03

Estimated momentum thickness Reynolds number = 6828.53

Location of traverse; X/T = 3.187 Z/T = -.58015 (Plane 8, S/T = 0.35)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	3.0381E-01	1.8548E-02			8.4339E-04	1.4256E-04	-1.9711E-01	2.2201E+00	
2.1246E-03	4.1069E-01	1.5101E-02			9.4998E-04	3.8783E-04	-2.0680E-01	1.4622E+00	
3.1870E-03	5.2565E-01	1.2044E-02			1.0377E-03	8.7904E-04	-1.8688E-01	1.1492E+00	
4.2493E-03	5.8211E-01	1.2830E-02			1.1339E-03	1.2502E-03	-1.3521E-01	3.1190E-01	
6.0198E-03	6.3126E-01	1.2291E-02	-2.9985E-01	2.1344E-01	1.5758E-03	1.8760E-03	1.9813E-02	1.2300E-01	-1.6963E-03
8.1445E-03	6.6916E-01	1.1571E-02	-2.1609E-01	-1.2504E-02	3.3508E-03	2.2172E-03	9.7403E-02	9.2977E-02	-1.9019E-03
1.0977E-02	7.0660E-01	1.0471E-02	-1.5237E-01	-2.1876E-01	4.7421E-03	2.3708E-03	2.4271E-01	1.5495E-01	-1.8838E-03
1.4873E-02	7.4783E-01	1.0272E-02	-2.1869E-01	-2.5326E-01	4.8103E-03	2.2396E-03	2.8795E-01	2.0925E-01	-1.4188E-03
1.8768E-02	7.7976E-01	8.9055E-03	-2.8866E-01	-2.4050E-01	6.5962E-03	2.1075E-02	3.6893E-01	2.4166E-01	-1.6608E-03
2.4433E-02	8.0956E-01	8.1824E-03	-4.3459E-01	-4.8318E-02	5.7409E-03	1.8905E-03	3.8721E-01	3.3829E-01	-1.3748E-03
3.1516E-02	8.4801E-01	6.1856E-03	-5.2394E-01	2.1915E-01	6.4057E-03	1.5956E-03	3.9902E-01	3.8523E-01	-7.8314E-04
4.1076E-02	8.7509E-01	4.3632E-03	-4.8416E-01	3.4345E-01	9.3398E-03	1.4146E-03	3.1396E-01	4.0449E-01	-1.8374E-04
5.2762E-02	8.8525E-01	3.2345E-03	-2.8379E-01	2.3036E-01	8.3144E-03	1.3328E-03	2.0926E-01	4.1429E-01	2.8449E-06
6.7989E-02	8.8990E-01	2.7520E-03	-4.7408E-02	-1.8598E-01	9.2440E-03	1.3837E-03	-8.5433E-02	7.8826E-02	-1.3438E-05
8.6756E-02	8.8598E-01	2.6134E-03	-4.5068E-02	-2.3904E-01					
1.1154E-01	8.8021E-01	2.7664E-03	-1.0651E-01	-2.7727E-01	8.5226E-03	1.5364E-03	-7.8001E-02	-9.4714E-02	-1.5894E-04
1.4341E-01	8.8314E-01	2.8450E-03	-1.1958E-01	-4.1637E-01	9.5398E-03	1.5049E-03	1.8155E-02	-1.7206E-01	-4.1753E-04
1.8307E-01	8.9467E-01	3.0410E-03	-2.4933E-01	-3.1489E-01	8.3413E-03	1.3734E-03	9.4514E-02	-3.7950E-02	-5.0392E-04
2.3371E-01	9.1571E-01	2.8496E-03	-3.6581E-01	-3.1928E-01	1.0868E-02	1.2002E-03	1.7318E-01	-3.8140E-02	-5.4325E-04
2.9887E-01	9.4936E-01	2.2850E-03	-6.2666E-01	6.3649E-02	1.6160E-02	9.2032E-04	3.6831E-01	2.5329E-01	-5.5714E-04
3.8206E-01	9.8459E-01	1.4546E-03	-9.3027E-01	7.4514E-01	1.9143E-02	5.7567E-04	5.6931E-01	5.2780E-01	-3.4388E-04
4.8831E-01	1.0181E+00	3.7957E-04	-1.4380E+00	2.8612E+00	2.0355E-02	2.1841E-04	8.1935E-01	1.4438E+00	-7.9996E-05
6.2429E-01	1.0284E+00	4.0778E-05	1.9155E-01	1.0306E-01	1.8730E-02	4.4498E-05	3.1317E-01	3.4730E-01	1.3868E-05
7.9745E-01	1.0299E+00	2.8616E-05	-4.2598E-02	-1.2349E-01	1.4417E-02	2.3567E-05	5.6752E-02	-2.2130E-01	1.3783E-05
1.0188E+00	1.0311E+00	2.1572E-05	-1.1803E-01	-1.3808E-01	1.3407E-02	1.6085E-05	-4.7063E-02	-3.3534E-01	1.2351E-05
1.2380E+00	1.0308E+00	2.0948E-05	-1.2472E-01	-1.1680E-01	9.9195E-03	1.6132E-05	-1.5287E-02	-3.2418E-01	1.2863E-05
1.5921E+00	1.0297E+00	2.0167E-05	-1.6030E-01	-8.3164E-02	5.4243E-03	1.5963E-05	7.8558E-02	-3.0379E-01	1.5126E-05

Table F.5-8 Velocity measurements made at S/T = 0.35 with the UV system of the laser anemometer, plane 8

File E588770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.6

density (kilograms per meter cubed) = 1.10336E

viscosity (meters squared per second) = 1.666904E-05

Atmospheric pressure (Pascals) = 94600

Velocity of undisturbed free stream (Uref, in m/s) = 27.66008

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090675E-03

Estimated momentum thickness Reynolds number = 6787.939

Location of traverse: X/T = 3.187 Z/T = -.48015 (Plane B, S/T = 0.25)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
7.0822E-04	3.1436E-01	2.3084E-02			1.5919E-03	9.8629E-05	-3.0124E-01	2.7939E+00	
1.4164E-03	3.7632E-01	2.3159E-02			1.8649E-03	2.2203E-04	-9.7779E-03	1.8909E+00	
2.4788E-03	4.6589E-01	1.8559E-02			2.2161E-03	4.7051E-04	-9.3200E-02	1.1954E+00	
3.5411E-03	5.8416E-01	1.2755E-02			2.5779E-03	9.8715E-04	-1.9302E-01	9.8290E-01	
5.3116E-03	6.4700E-01	1.2431E-02			2.4560E-03	1.5541E-03	-1.3543E-01	5.1367E-01	
7.4363E-03	7.0266E-01	1.2066E-02	-3.9624E-01	3.6633E-01	4.2284E-03	2.0204E-03	4.8798E-02	1.8985E-01	-1.7662E-03
1.0269E-02	7.5141E-01	1.0743E-02	-3.2800E-01	-1.6862E-02	5.5411E-03	2.2726E-03	3.2297E-01	3.0202E-01	-2.1015E-03
1.3810E-02	7.9582E-01	9.7287E-03	-4.1155E-01	1.2381E-03	5.6165E-03	2.0950E-03	3.5409E-01	3.4585E-01	-1.5854E-03
1.8768E-02	8.3145E-01	8.4686E-03	-5.5041E-01	4.2088E-02	3.8580E-03	1.8316E-03	3.6137E-01	3.4331E-01	-1.4160E-03
2.3725E-02	8.6337E-01	6.2621E-03	-6.0330E-01	2.5344E-01	3.8681E-03	1.4940E-03	4.9482E-01	6.2624E-01	-1.1363E-03
3.0807E-02	8.9344E-01	4.4446E-03	-6.4071E-01	7.3966E-01	4.3391E-03	1.2300E-03	3.7702E-01	5.1695E-01	-6.0757E-04
4.0368E-02	9.1235E-01	3.0498E-03	-3.7448E-01	2.5880E-01	3.5149E-03	1.0553E-03	1.6639E-01	3.4115E-01	-1.0815E-04
5.2054E-02	9.1418E-01	2.5204E-03	-1.7243E-01	-2.0484E-01	1.3327E-03	1.0435E-03	-1.7534E-02	8.1113E-02	-6.0335E-05
6.7280E-02	9.1449E-01	2.4634E-03	-1.7950E-01	-1.7171E-01	1.2018E-03	1.1422E-03	-8.5772E-02	2.1414E-02	-9.7869E-05
8.7110E-02	9.1099E-01	2.4112E-03	-1.5922E-01	-2.5760E-01	8.5892E-04	1.2082E-03	-9.2128E-02	1.0615E-01	-1.2820E-04
1.1084E-01	9.0914E-01	2.4728E-03	-1.7193E-01	-3.9368E-01	1.4437E-03	1.2087E-03	-9.2275E-02	1.2001E-02	-2.0364E-04
1.4200E-01	9.1137E-01	2.5973E-03	-2.5144E-01	-2.7630E-01	4.0934E-03	1.2208E-03	-3.1481E-02	5.5183E-02	-2.4341E-04
1.8201E-01	9.1924E-01	2.5481E-03	-3.5739E-01	-2.8392E-01	5.5247E-03	1.1713E-03	-1.9065E-02	1.0224E-01	-3.1859E-04
2.3300E-01	9.3413E-01	2.3994E-03	-4.9469E-01	-1.1887E-01	8.8147E-03	9.5249E-04	1.6444E-01	2.1459E-01	-3.3796E-04
2.9816E-01	9.6424E-01	1.8054E-03	-6.9592E-01	2.3458E-01	1.4064E-02	7.6039E-04	3.6778E-01	4.3311E-01	-3.6533E-04
3.8137E-01	9.9345E-01	1.0674E-03	-9.3358E-01	7.3303E-01	1.6045E-02	4.7823E-04	5.0917E-01	7.4209E-01	-1.6737E-04
4.8761E-01	1.0208E+00	2.6200E-04	-1.2728E+00	2.4844E+00	1.7872E-02	1.7761E-04	8.3299E-01	1.7081E+00	-4.6104E-05
6.2358E-01	1.0290E+00	3.8792E-05	6.4306E-02	-1.2637E-01	1.6272E-02	4.0104E-05	1.4532E-01	3.7351E-03	1.1289E-05
7.9674E-01	1.0302E+00	2.6659E-05	-6.5746E-02	-3.7578E-02	1.5184E-02	2.1938E-05	8.9328E-02	-1.7044E-01	1.2497E-05
1.0181E+00	1.0304E+00	2.2944E-05	-9.1901E-02	-9.4565E-02	1.2995E-02	1.6871E-05	-1.9518E-02	-2.2637E-01	1.2789E-05
1.2373E+00	1.0324E+00	2.3106E-05	-7.5798E-02	-2.0907E-02	9.5502E-03	1.5735E-05	-1.2174E-02	-2.1811E-01	1.3257E-05
1.5914E+00	1.0321E+00	1.8028E-05	-2.0968E-01	-2.4358E-02	4.8620E-03	1.5472E-05	6.9890E-02	-3.3724E-01	1.0643E-05

Table F.5-9 Velocity measurements made at S/T = 0.25 with the UV system of the laser anemometer, plane B

File E589770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.8

density (kilograms per meter cubed) = 1.108768

viscosity (meters squared per second) = 1.655329E-05

Atmospheric pressure (Pascals) = 94810

Velocity of undisturbed free stream (Uref, in m/s) = 27.67796

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.090147E-03

Estimated momentum thickness Reynolds number = 6838.938

Location of traverse; X/T = 3.187 Z/T = -.38015 (Plane 8, S/T = 0.15)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	3.9048E-01	1.9804E-02			3.4542E-03	1.4245E-04	-1.6360E-02	2.1661E+00	
2.4788E-03	5.2937E-01	1.1075E-02			4.6759E-03	4.9145E-04	-1.6687E-02	1.2257E+00	
3.5411E-03	5.9644E-01	1.2236E-02			4.5163E-03	8.8776E-04	-2.1567E-01	1.1089E+00	
5.3116E-03	6.6610E-01	1.1362E-02			4.9548E-03	1.5609E-03	-5.7459E-02	4.0879E-01	
7.4363E-03	7.1339E-01	1.0384E-02	-4.6832E-01	5.0755E-01	4.9417E-03	1.9491E-03	1.3090E-01	2.8456E-01	-1.6562E-03
1.0269E-02	7.5264E-01	9.0093E-03	-4.1124E-01	1.8539E-01	5.8756E-03	2.0509E-03	3.1043E-01	2.2002E-01	-1.7497E-03
1.3810E-02	7.8975E-01	7.8280E-03	-3.8082E-01	-2.7135E-02	4.7517E-03	1.9740E-03	3.0658E-01	2.7433E-01	-1.3403E-03
1.8059E-02	8.1800E-01	6.7924E-03	-4.4298E-01	-3.9036E-03	2.3486E-03	1.9625E-03	2.6871E-01	3.5306E-01	-1.1777E-03
2.3725E-02	8.5112E-01	5.4813E-03	-4.6829E-01	1.5500E-01	1.7958E-03	1.6764E-03	2.1456E-01	3.8438E-01	-4.4410E-04
3.0807E-02	8.7471E-01	4.3924E-03	-4.1459E-01	3.6099E-02	1.8385E-03	1.7717E-03	6.7572E-02	1.6121E-01	-2.1979E-04
4.0368E-02	8.8244E-01	3.7725E-03	-3.9483E-01	-2.1267E-03	-2.0214E-03	2.0008E-03	1.4901E-02	1.3374E-01	-2.2531E-04
5.2054E-02	8.8869E-01	3.6390E-03	-3.7231E-01	-8.5556E-02	-7.5345E-03	2.2277E-03	6.5339E-02	2.5804E-02	-2.9565E-04
6.7280E-02	8.9525E-01	3.4509E-03	-3.9332E-01	-5.8708E-02	-1.4026E-02	2.3200E-03	1.6212E-01	1.7275E-01	-6.7905E-04
8.6048E-02	9.0616E-01	3.5100E-03	-4.7812E-01	4.2751E-02	-1.4753E-02	2.2342E-03	3.7174E-01	3.8305E-01	-6.3493E-04
1.1084E-01	9.2462E-01	3.2049E-03	-5.5083E-01	3.4833E-01	-1.6109E-02	1.8700E-03	4.6372E-01	5.1683E-01	-6.7005E-04
1.4200E-01	9.4509E-01	2.5148E-03	-4.9976E-01	3.4112E-01	-1.6336E-02	1.2819E-03	2.6283E-01	4.5878E-01	-4.5545E-04
1.8201E-01	9.5805E-01	1.9956E-03	-4.2415E-01	1.3880E-01	-8.1236E-03	9.2240E-04	8.8691E-02	2.8612E-01	-3.7539E-04
2.3300E-01	9.7117E-01	1.6194E-03	-5.3797E-01	1.7443E-01	-6.9577E-04	7.3040E-04	1.3443E-01	3.2587E-01	-3.1265E-04
2.9816E-01	9.8725E-01	1.1622E-03	-8.0085E-01	6.7792E-01	4.4604E-03	5.8647E-04	3.2674E-01	6.6510E-01	-2.4207E-04
3.8137E-01	1.0074E+00	5.8946E-04	-9.4519E-01	1.1593E+00	9.8183E-03	3.2565E-04	5.9048E-01	1.3190E+00	-1.3656E-04
4.8761E-01	1.0252E+00	1.3943E-04	-3.9953E-01	1.6488E+00	1.0971E-02	1.2130E-04	6.9291E-01	1.5479E+00	1.1762E-06
6.2358E-01	1.0275E+00	5.5492E-05	1.0655E-01	-1.2655E-01	1.2024E-02	4.3586E-05	1.2798E-01	-1.0397E-01	1.5014E-05
7.9674E-01	1.0277E+00	4.0324E-05	1.2589E-02	-1.3061E-01	1.2638E-02	2.8966E-05	1.2132E-02	-1.9879E-01	1.3816E-05
1.0181E+00	1.0288E+00	3.9148E-05	1.0147E-01	-9.9309E-02	1.1141E-02	2.5489E-05	3.6476E-02	-1.9373E-01	1.5300E-05
1.2373E+00	1.0287E+00	3.9944E-05	8.8786E-02	-6.3032E-02	7.6755E-03	2.2730E-05	6.4044E-02	-1.9134E-01	1.5927E-05
1.5914E+00	1.0279E+00	3.7332E-05	7.2640E-02	-1.2394E-01	2.3621E-03	1.8529E-05	1.0727E-01	-1.1776E-01	1.5218E-05

Table F.5-10 Velocity measurements made at S/T = 0.15 with the UV system of the laser anemometer, plane 8

File E569770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.2

density (kilograms per meter cubed) = 1.114015

viscosity (meters squared per second) = 1.645004E-05

Atmospheric pressure (Pascals) = 95065

Velocity of undisturbed free stream (Uref, in m/s) = 27.67649

Estimated momentum thickness at X/T = -2.146, Z/T=0 (e) = 4.09019E-03

Estimated momentum thickness Reynolds number = 6881.569

Location of traverse: X/T = 3.187 Z/T = -1.4801 (Plane 8 , S/T = 1.25)

Y/T	W/Uref	W2/Uref2	uw/Uref2
8.8527E-04	3.7632E-02	1.8028E-03	
1.5935E-03	4.0407E-02	2.0376E-03	
2.3017E-03	4.4031E-02	2.1844E-03	
3.3640E-03	5.2869E-02	2.6834E-03	
4.4263E-03	6.3542E-02	3.0780E-03	
5.4827E-03	7.1008E-02	3.5956E-03	1.1513E-03
7.2592E-03	7.6359E-02	3.8662E-03	7.3007E-04
9.3829E-03	7.8723E-02	3.7743E-03	3.9318E-04
1.2217E-02	8.1856E-02	3.8954E-03	3.4327E-04
1.5758E-02	8.2075E-02	3.7015E-03	2.8037E-04
2.0361E-02	8.3280E-02	3.7302E-03	3.3032E-04
2.5673E-02	8.1384E-02	3.5011E-03	1.4222E-04
3.2755E-02	7.9468E-02	3.4240E-03	2.1788E-04
4.2316E-02	7.6799E-02	3.1660E-03	4.1752E-04
5.4001E-02	7.4510E-02	3.1528E-03	3.7088E-04
6.9228E-02	6.9845E-02	2.8569E-03	2.2415E-04
8.8704E-02	6.6864E-02	2.5710E-03	3.2197E-04
1.1278E-01	6.3546E-02	2.5012E-03	3.7342E-04
1.4394E-01	6.5740E-02	2.2669E-03	3.8448E-04
1.8396E-01	7.1006E-02	2.1861E-03	3.6829E-04
2.3530E-01	7.5751E-02	2.0155E-03	1.5937E-04
3.0011E-01	7.9467E-02	1.7476E-03	8.6938E-05
3.8332E-01	8.2816E-02	1.2851E-03	5.7964E-06
4.8955E-01	8.4821E-02	5.1238E-04	-3.5624E-05
6.2553E-01	8.6063E-02	5.4552E-05	2.1940E-05
7.9869E-01	8.6196E-02	2.4263E-05	1.9600E-05
1.0200E+00	8.6793E-02	2.2027E-05	2.0668E-05
1.2392E+00	8.6329E-02	1.9504E-05	1.8543E-05
1.5933E+00	8.3678E-02	1.9921E-05	1.8847E-05

Table F.5-11 Velocity measurements made at S/T = 1.25 with the UW system of the laser anemometer, plane 8

File E569770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.35

density (kilograms per meter cubed) = 1.113219

viscosity (meters squared per second) = 1.646822E-05

Atmospheric pressure (Pascals) = 95045

Velocity of undisturbed free stream (Uref, in m/s) = 27.66907

Estimated momentum thickness at X/T = -2.146, Z/T=0 (n) = 4.090409E-03

Estimated momentum thickness Reynolds number = 6872.496

Location of traverse; X/T = 3.187 Z/T = -1.2802 (Plane 8, S/T = 1.05)

Y/T	W/Uref	w2/Uref2	uw/Uref2
8.8527E-04	3.5210E-02	1.9022E-03	
1.5935E-03	3.7830E-02	1.9607E-03	
2.6558E-03	4.4104E-02	2.3579E-03	
3.3640E-03	4.9605E-02	2.7160E-03	
4.4263E-03	5.5830E-02	3.0710E-03	
5.4887E-03	6.2853E-02	3.4934E-03	
7.2592E-03	6.9160E-02	3.9214E-03	3.6584E-04
9.3839E-03	7.2762E-02	4.2749E-03	3.4561E-04
1.2217E-02	7.7269E-02	4.0644E-03	4.1016E-04
1.5759E-02	7.6786E-02	4.1658E-03	1.6461E-04
2.0361E-02	7.5721E-02	4.1326E-03	5.1740E-05
2.5673E-02	7.3914E-02	4.0009E-03	-3.1162E-05
3.2755E-02	7.4112E-02	4.0050E-03	-1.3674E-05
4.2316E-02	7.1693E-02	3.9202E-03	1.0900E-04
5.4001E-02	6.6945E-02	3.6673E-03	-1.0534E-04
6.9228E-02	6.5564E-02	3.5218E-03	1.5872E-04
8.7996E-02	6.1589E-02	3.3294E-03	4.1733E-04
1.1278E-01	5.9704E-02	3.1466E-03	6.3860E-04
1.4394E-01	6.2729E-02	3.0301E-03	6.5636E-04
2.3495E-01	7.9725E-02	2.4602E-03	3.1098E-04
3.0011E-01	8.8501E-02	2.0614E-03	2.3763E-04
3.8332E-01	9.3104E-02	1.3699E-03	1.6607E-05
4.8955E-01	9.5662E-02	5.2689E-04	-9.4539E-05
6.2553E-01	9.6719E-02	4.6115E-05	1.5297E-05
7.9869E-01	9.7510E-02	2.2645E-05	1.5908E-05
1.0200E+00	9.7126E-02	2.3143E-05	2.1671E-05
1.2392E+00	9.6940E-02	2.1039E-05	2.0948E-05
1.5933E+00	9.4428E-02	2.2707E-05	2.1116E-05

Table F.5-12 Velocity measurements made at S/T = 1.05 with the UW system of the laser anemometer, plane 8

File E567770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.107436

viscosity (meters squared per second) = 1.653917E-05

Atmospheric pressure (Pascals) = 94440

Velocity of undisturbed free stream (U-ref, in m/s) = 27.79755

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (α) = 4.086621E-03

Estimated momentum thickness Reynolds number = 6868.423

Location of traverse: $X/T = 3.187$ $Z/T = -1.0602$ (Plane 8, $S/T = 0.85$)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.7705E-03	2.9367E-02	2.5252E-03	
2.4788E-03	3.4440E-02	2.8225E-03	
3.1870E-03	3.7290E-02	3.1728E-03	
4.2493E-03	4.2718E-02	3.7266E-03	
5.5116E-03	4.4406E-02	4.2422E-03	4.3519E-04
6.7260E-03	4.6395E-02	4.5397E-03	1.3614E-04
8.4996E-03	4.9184E-02	4.8075E-03	-3.3060E-05
1.0269E-02	4.8561E-02	4.7093E-03	-1.7043E-04
1.3102E-02	5.2406E-02	5.0090E-03	
1.6643E-02	5.1179E-02	4.9239E-03	-1.7364E-04
2.0852E-02	4.9133E-02	4.9230E-03	-2.6767E-04
2.6558E-02	4.7278E-02	5.1480E-03	-2.7491E-04
3.3640E-02	4.7379E-02	5.1047E-03	-2.2420E-04
4.3201E-02	4.1848E-02	5.2069E-03	-1.9633E-04
5.4887E-02	3.9277E-02	5.3375E-03	-1.6865E-05
7.0467E-02	3.3540E-02	5.1620E-03	9.6382E-05
8.8861E-02	3.3524E-02	5.0350E-03	1.5389E-04
1.1367E-01	3.7611E-02	4.9152E-03	5.8484E-04
1.4483E-01	4.8692E-02	4.5611E-03	6.3726E-04
1.8484E-01	6.9862E-02	4.0418E-03	8.7225E-04
2.3584E-01	8.9826E-02	3.4186E-03	8.3831E-04
3.0099E-01	1.0074E-01	2.5259E-03	2.8167E-04
3.8421E-01	1.0602E-01	1.3787E-03	-9.7341E-05
4.9044E-01	1.0581E-01	4.6897E-04	-2.0344E-04
6.2642E-01	1.0279E-01	4.9806E-05	1.6969E-05
7.9958E-01	1.0070E-01	2.1176E-05	1.6830E-05
1.0209E+00	9.8960E-02	1.9491E-05	1.9497E-05
1.2401E+00	9.7553E-02	1.9081E-05	1.9379E-05
1.5942E+00	9.4797E-02	2.0565E-05	1.9354E-05

Table F.5-13 Velocity measurements made at $S/T = 0.85$ with the UW system of the laser anemometer, plane 8

File E566770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24

density (kilograms per meter cubed) = 1.106967

viscosity (meters squared per second) = 1.654618E-05

Atmospheric pressure (Pascals) = 94400

Velocity of undisturbed free stream (Uref, in m/s) = 27.7709

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087405E-03

Estimated momentum thickness Reynolds number = 6860.248

Location of traverse: X/T = 3.187 Z/T = -.98015 (Plane 8, S/T = 0.75)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.9476E-03	1.6167E-02	2.5607E-03	
2.6558E-03	1.6879E-02	2.7036E-03	
3.3640E-03	2.0430E-02	3.2479E-03	
4.7805E-03	2.1555E-02	4.1693E-03	
5.4887E-03	2.1844E-02	4.4673E-03	-1.4800E-03
6.5510E-03	2.3725E-02	4.8183E-03	-1.4106E-03
8.3215E-03	2.4458E-02	5.2644E-03	-1.8711E-03
1.0446E-02	2.3454E-02	5.4772E-03	-1.8853E-03
1.3279E-02	2.2779E-02	5.4716E-03	-1.9371E-03
1.6820E-02	1.9949E-02	5.5490E-03	-2.2933E-03
2.1069E-02	1.8728E-02	5.5665E-03	-2.3163E-03
2.6735E-02	1.6983E-02	5.5139E-03	-2.3082E-03
3.3817E-02	1.2996E-02	5.4192E-03	-2.5524E-03
4.3378E-02	1.2832E-02	5.1724E-03	-2.7954E-03
5.5064E-02	1.3265E-02	4.7385E-03	-2.0059E-03
7.0290E-02	1.2325E-02	4.5377E-03	-1.4821E-03
8.9058E-02	1.8012E-02	4.3388E-03	-8.7229E-04
1.1385E-01	3.5100E-02	4.3629E-03	-2.4772E-04
1.4536E-01	6.2469E-02	4.4114E-03	1.9655E-04
1.8502E-01	9.6662E-02	3.9963E-03	3.3775E-04
2.3601E-01	1.1837E-01	3.3089E-03	1.6033E-04
3.0117E-01	1.2428E-01	2.4225E-03	-3.5361E-05
3.8438E-01	1.2573E-01	1.3013E-03	-1.5473E-04
4.9062E-01	1.2253E-01	4.3753E-04	-2.3110E-04
6.2657E-01	1.1807E-01	4.5154E-05	1.5947E-05
7.9975E-01	1.1455E-01	2.2819E-05	1.6381E-05
1.0211E+00	1.1215E-01	1.9138E-05	1.8671E-05
1.2403E+00	1.1056E-01	1.7277E-05	1.8610E-05
1.5944E+00	1.0802E-01	1.7786E-05	1.8477E-05

Table F.5-14 Velocity measurements made at S/T = 0.75 with the UW system of the laser anemometer, plane 8

File E545770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.094746

viscosity (meters squared per second) = 1.678297E-05

Atmospheric pressure (Pascals) = 93735

Velocity of undisturbed free stream (Uref, in m/s) = 27.7637

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.087617E-03

Estimated momentum thickness Reynolds number = 6762.057

Location of traverse: $X/T = 3.127$ $Z/T = -.88015$ (Plane 8, $S/T = 0.65$)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.2394E-03	1.0135E-02	2.8707E-03	
1.9476E-03	1.9942E-02	2.9503E-03	
3.0099E-03	1.2720E-02	4.0274E-03	2.4348E-03
4.0722E-03	1.3855E-02	4.5496E-03	1.2806E-03
5.3116E-03	1.5466E-02	4.7750E-03	-7.0264E-04
7.2592E-03	1.6022E-02	5.0397E-03	-8.8217E-04
1.1863E-02	1.5509E-02	4.9806E-03	-9.7463E-04
1.5404E-02	1.4946E-02	4.8233E-03	-1.0063E-03
1.9653E-02	1.4265E-02	4.4830E-03	-9.1671E-04
2.5319E-02	1.5461E-02	4.0857E-03	-1.0400E-03
3.2401E-02	1.5031E-02	3.9112E-03	-6.7010E-04
4.1962E-02	1.6076E-02	3.2543E-03	-1.0846E-03
5.5418E-02	2.0344E-02	3.0619E-03	-7.1521E-04
6.8874E-02	2.7475E-02	3.1060E-03	-6.8991E-04
8.7642E-02	4.1232E-02	3.2559E-03	-6.6003E-04
1.1243E-01	6.2056E-02	3.8689E-03	-2.0084E-04
1.4394E-01	9.3450E-02	4.3261E-03	8.8738E-05
1.8431E-01	1.2918E-01	4.1280E-03	1.9065E-04
2.3637E-01	1.5394E-01	3.1832E-03	-2.2413E-04
2.9975E-01	1.6077E-01	2.4223E-03	-1.9097E-04
3.8297E-01	1.6023E-01	1.2489E-03	-2.4728E-04
4.8920E-01	1.5454E-01	3.9296E-04	-1.8855E-04
6.2518E-01	1.4819E-01	3.5416E-05	8.1901E-06
7.9834E-01	1.4434E-01	1.0158E-04	4.5496E-05
1.0197E+00	1.4140E-01	2.1642E-05	1.5688E-05
1.2388E+00	1.3885E-01	2.0619E-05	1.5310E-05
1.5930E+00	1.3687E-01	2.3576E-05	1.8054E-05

Table F.5-15 Velocity measurements made at $S/T = 0.65$ with the UW system of the laser anemometer, plane 8

File E564770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.095656

viscosity (meters squared per second) = 1.676037E-05

Atmospheric pressure (Pascals) = 93750

Velocity of undisturbed free stream (Uref, in m/s) = 28.00379

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.060584E-03

Estimated momentum thickness Reynolds number = 6817.977

Location of traverse: X/T = 3.187 Z/T = -.78015 (Plane 8, S/T = 0.55)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.5935E-03	2.5296E-02	3.0385E-03	
2.8327E-03	2.7696E-02	3.5272E-03	
3.7181E-03	3.2536E-02	3.8784E-03	
4.9575E-03	3.7367E-02	4.6569E-03	5.1066E-04
5.8428E-03	3.9036E-02	4.7783E-03	4.5382E-04
7.6133E-03	4.1109E-02	4.9354E-03	4.1653E-04
9.7380E-03	4.2403E-02	4.8602E-03	5.1666E-04
1.2571E-02	2.1768E-02	4.4815E-03	-1.9457E-04
1.6112E-02	2.5755E-02	4.3375E-03	-8.9999E-06
2.1424E-02	2.5438E-02	3.7926E-03	1.9918E-04
2.6735E-02	2.3494E-02	3.5223E-03	1.3638E-06
3.3109E-02	2.6264E-02	3.2238E-03	5.0154E-05
4.2670E-02	2.5594E-02	2.8416E-03	-2.1665E-04
5.4356E-02	2.3011E-02	2.5360E-03	-3.3599E-04
6.9582E-02	4.0240E-02	2.7965E-03	-4.6201E-04
8.8350E-02	6.1981E-02	2.8509E-03	-3.0127E-04
1.1314E-01	8.2278E-02	3.0563E-03	-1.1337E-04
1.4465E-01	1.0569E-01	3.2311E-03	-7.1620E-05
1.8431E-01	1.3195E-01	3.1393E-03	-5.4237E-04
2.3530E-01	1.5176E-01	2.6106E-03	-6.3664E-04
3.0046E-01	1.6384E-01	1.9435E-03	-3.7440E-04
3.8403E-01	1.5981E-01	9.8353E-04	-1.8401E-04
4.8991E-01	1.5955E-01	3.6860E-04	-1.4068E-04
6.2624E-01	1.6119E-01	3.3637E-05	1.2611E-05
7.9904E-01	1.5966E-01	1.9413E-05	-2.8773E-06
1.0204E+00	1.6987E-01	9.7579E-05	7.5549E-05
1.2396E+00	1.4197E-01	1.0049E-04	7.7721E-05
1.5937E+00	1.5576E-01	2.8336E-05	7.9531E-06

Table F.5-16 Velocity measurements made at S/T = 0.55 with the UW system of the laser anemometer, plane 8

File E563770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.8

density (kilograms per meter cubed) = 1.099716

viscosity (meters squared per second) = 1.673301E-05

Atmospheric pressure (Pascals) = 94350

Velocity of undisturbed free stream (Uref, in m/s) = 27.75863

Estimated momentum thickness at X/T = -2.146, Z/T=0 (e) = 4.067766E-03

Estimated momentum thickness Reynolds number = 6781.257

Location of traverse; X/T = 3.187 Z/T = -.62015 (Plane 8, S/T = 0.45)

Y/T	W/Uref	W2/Uref2	uw/Uref2
1.7705E-03	2.0468E-02	3.1042E-03	
3.1870E-03	2.7169E-02	3.9434E-03	
3.8952E-03	2.7931E-02	4.3613E-03	
4.9575E-03	2.9551E-02	4.6328E-03	
6.7280E-03	3.1918E-02	5.0565E-03	-4.9943E-04
9.5609E-03	3.3493E-02	5.0333E-03	-8.6359E-05
1.2040E-02	3.5261E-02	4.8457E-03	9.2165E-05
1.5227E-02	3.7134E-02	4.7780E-03	1.2046E-04
1.9476E-02	3.6947E-02	4.5819E-03	-7.4733E-05
2.5142E-02	3.9475E-02	3.9122E-03	4.2259E-05
3.2224E-02	4.2001E-02	3.3634E-03	1.4316E-04
4.1785E-02	4.4261E-02	2.8640E-03	-1.1880E-04
5.3470E-02	5.1427E-02	2.5011E-03	-1.7799E-04
6.8697E-02	5.8527E-02	2.4455E-03	-3.9212E-04
8.8527E-02	7.6523E-02	2.2942E-03	-1.9780E-04
1.1261E-01	9.3338E-02	2.2844E-03	-1.2832E-04
1.4377E-01	1.0809E-01	2.2634E-03	-2.4611E-04
1.8343E-01	1.2428E-01	2.3110E-03	-3.3773E-04
2.3477E-01	1.3887E-01	2.0503E-03	-3.1090E-04
2.9958E-01	1.4754E-01	1.5657E-03	-1.9214E-04
3.8279E-01	1.4924E-01	9.6837E-04	-7.0242E-05
4.8902E-01	1.4780E-01	2.8499E-04	-1.0472E-04
6.2500E-01	1.4144E-01	3.1193E-05	1.2787E-05
7.9816E-01	1.3639E-01	9.4048E-05	7.3542E-05
1.0195E+00	1.3142E-01	2.2098E-05	1.2249E-05
1.2387E+00	1.3687E-01	2.7396E-05	1.6877E-05
1.5928E+00	1.3180E-01	1.9397E-05	1.2896E-05

Table F.5-17 Velocity measurements made at S/T = 0.45 with the UW system of the laser anemometer, plane 8

File E562770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.4

density (kilograms per meter cubed) = 1.101715

viscosity (meters squared per second) = 1.668542E-05

Atmospheric pressure (Pascals) = 94395

Velocity of undisturbed free stream (Uref, in m/s) = 27.46566

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.09645E-03

Estimated momentum thickness Reynolds number = 6743.115

Location of traverse: X/T = 3.167 Z/T = -.58015 (Plane 8 , S/T = 0.35)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.5935E-03	3.7735E-02	3.7815E-03	
2.4788E-03	4.1711E-02	3.9071E-03	
3.5411E-03	4.7065E-02	4.4404E-03	
5.0637E-03	5.0589E-02	4.6263E-03	3.6271E-05
7.0822E-03	5.3473E-02	4.8744E-03	5.3004E-04
9.9150E-03	5.4186E-02	5.2070E-03	6.5479E-05
1.3456E-02	5.7553E-02	4.9636E-03	3.4609E-04
1.7705E-02	6.1125E-02	4.3739E-03	-7.3460E-06
2.3371E-02	6.0025E-02	3.5901E-03	-1.3785E-04
3.0453E-02	7.0122E-02	2.9992E-03	-2.6177E-04
4.0014E-02	7.2826E-02	2.5029E-03	-1.1469E-04
5.2408E-02	8.3522E-02	1.9655E-03	-3.4342E-04
6.6926E-02	9.3524E-02	1.8829E-03	-3.0550E-04
8.6756E-02	1.0822E-01	1.7440E-03	-3.1549E-04
1.1048E-01	1.2064E-01	1.6731E-03	-2.5582E-04
1.4164E-01	1.3461E-01	1.6867E-03	-1.7928E-04
1.8166E-01	1.4456E-01	1.6755E-03	-1.1798E-04
2.3265E-01	1.5376E-01	1.4900E-03	-2.5854E-04
2.9780E-01	1.6374E-01	1.2257E-03	-2.1256E-04
3.8102E-01	1.6660E-01	6.8957E-04	3.0905E-05
4.8725E-01	1.6716E-01	1.9662E-04	-1.0262E-04
6.2323E-01	1.6198E-01	3.3168E-05	2.5083E-05
7.9639E-01	1.5728E-01	8.2131E-05	6.2144E-05
1.0177E+00	1.5581E-01	2.0764E-05	1.3794E-05
1.2369E+00	1.5442E-01	2.0919E-05	1.5805E-05
1.5910E+00	1.5147E-01	2.1724E-05	1.8186E-05

Table F.5-18 Velocity measurements made at S/T = 0.35 with the UW system of the laser anemometer, plane 8

File E561770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.7

density (kilograms per meter cubed) = 1.102066

viscosity (meters squared per second) = 1.6693E-05

Atmospheric pressure (Pascals) = 94520

Velocity of undisturbed free stream (Uref, in m/s) = 27.46872

Estimated momentum thickness at X/T = -2.146, Z/T=0 (α) = 4.096359E-03

Estimated momentum thickness Reynolds number = 6740.652

Location of traverse: X/T = 3.187 Z/T = -.48015 (Plane 8, S/T = 0.25)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.6558E-03	5.0144E-02	3.9576E-03	
3.5411E-03	5.6134E-02	4.1575E-03	
4.6634E-03	5.8880E-02	4.4712E-03	6.3543E-04
5.6657E-03	6.3265E-02	4.7138E-03	3.5530E-05
7.7904E-03	6.9024E-02	4.7749E-03	5.9778E-04
1.0623E-02	7.3234E-02	4.5140E-03	1.0747E-04
1.4164E-02	8.0376E-02	3.8541E-03	1.7745E-04
1.8414E-02	8.2026E-02	3.2657E-03	2.5107E-04
2.4079E-02	9.0431E-02	2.3599E-03	-3.4123E-04
3.1339E-02	9.1446E-02	2.0002E-03	-1.6919E-04
4.0722E-02	9.7134E-02	1.5540E-03	-2.3405E-04
6.7635E-02	1.1364E-01	1.3084E-03	-3.2315E-04
8.6402E-02	1.2494E-01	1.3080E-03	-3.6473E-04
1.1119E-01	1.3446E-01	1.3486E-03	-2.6127E-04
1.4235E-01	1.4400E-01	1.2693E-03	-3.1973E-04
1.8237E-01	1.5155E-01	1.3277E-03	-2.5159E-04
2.3407E-01	1.6135E-01	1.2182E-03	-3.0451E-04
2.9851E-01	1.6824E-01	9.7372E-04	-2.0787E-04
3.8314E-01	1.7368E-01	4.8554E-04	-1.2211E-04
4.8796E-01	1.7310E-01	1.4707E-04	-6.6240E-05
6.2571E-01	1.6928E-01	2.7704E-05	1.1495E-05
7.9745E-01	1.6496E-01	2.1712E-05	1.4017E-05
1.0184E+00	1.6294E-01	2.2113E-05	
1.2376E+00	1.6037E-01	2.0378E-05	1.5203E-05
1.5917E+00	1.6085E-01	2.1586E-05	7.3013E-06

Table F.5-19 Velocity measurements made at S/T = 0.25 with the UW system of the laser anemometer, plane 8

File E560770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.15

density (kilograms per meter cubed) = 1.106961

viscosity (meters squared per second) = 1.659562E-05

Atmospheric pressure (Pascals) = 94765

Velocity of undisturbed free stream (Uref, in m/s) = 27.44485

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.097071E-03

Estimated momentum thickness Reynolds number = 6775.492

Location of traverse: X/T = 3.167 Z/T = -.38015 (Plane 8, S/T = 0.15)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	7.6628E-02	4.5551E-03	
2.4783E-03	8.6600E-02	4.9308E-03	
3.5411E-03	9.3821E-02	5.2001E-03	
5.3116E-03	1.0405E-01	5.2297E-03	1.2455E-03
7.4363E-03	1.1250E-01	4.9533E-03	9.5922E-04
1.0269E-02	1.2015E-01	4.3376E-03	1.1160E-03
1.5810E-02	1.2522E-01	3.4791E-03	9.6252E-04
1.8059E-02	1.3147E-01	3.0115E-03	9.3695E-04
2.3725E-02	1.3877E-01	2.4724E-03	9.8669E-04
3.0807E-02	1.4302E-01	1.9377E-03	7.8236E-04
4.1076E-02	1.4285E-01	1.7943E-03	7.1259E-04
5.2054E-02	1.4443E-01	1.9834E-03	7.8821E-04
6.7280E-02	1.4249E-01	2.0611E-03	6.9666E-04
8.6048E-02	1.4421E-01	2.2155E-03	5.9264E-04
1.1084E-01	1.4837E-01	2.0347E-03	4.6132E-04
1.4235E-01	1.5368E-01	1.5371E-03	-9.3852E-05
1.8201E-01	1.6452E-01	1.1094E-03	-2.3740E-04
2.3300E-01	1.7495E-01	8.5177E-04	-2.7713E-04
3.0135E-01	1.8125E-01	5.8596E-04	-1.4445E-04
3.8137E-01	1.8615E-01	3.2114E-04	-1.4938E-04
4.8761E-01	1.8311E-01	6.3243E-05	-3.0022E-05
6.2358E-01	1.8098E-01	3.6732E-05	1.4324E-05
7.9674E-01	1.7780E-01	3.5967E-05	8.7751E-06
1.0181E+00	1.7399E-01	3.3483E-05	1.1652E-05
1.2373E+00	1.7151E-01	3.4583E-05	1.6030E-05
1.5914E+00	1.7269E-01	4.6322E-05	1.6637E-05

Table F.5-20 Velocity measurements made at S/T = 0.15 with the UW system of the laser anemometer, plane 8

File E617770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22.4

density (kilograms per meter cubed) = 1.124988

viscosity (meters squared per second) = 1.621342E-05

Atmospheric pressure (Pascals) = 95420

Velocity of undisturbed free stream (Uref, in m/s) = 27.64987

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.090977E-03

Estimated momentum thickness Reynolds number = 6976.626

Location of traverse; $X/T = 3.187$ $Z/T = -1.4801$ (Plane 8, $S/T = 1.25$)

Y/T	vw/Uref2
3.1870E-03	-2.6807E-04
3.8952E-03	-1.2720E-04
5.3116E-03	-2.2794E-04
6.0198E-03	-5.6282E-05
7.0522E-03	-1.3451E-04
9.2068E-03	-9.7907E-05
1.0977E-02	-1.1292E-04
1.3810E-02	-7.6027E-05
1.7351E-02	7.7584E-06
2.1601E-02	-1.7310E-05
2.7266E-02	9.6295E-05
3.4348E-02	6.4052E-05
4.3909E-02	9.3428E-05
5.5595E-02	8.4966E-05
8.9589E-02	-4.6433E-05
1.1438E-01	-1.0870E-04
1.4554E-01	-2.1056E-04
1.8555E-01	-2.3710E-04
2.3654E-01	-9.3720E-05
3.0170E-01	-1.1446E-04

Table F.5-21 Velocity measurements made at $S/T = 1.25$ with the VW system of the laser anemometer, plane 8

File E616770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 21.8

density (kilograms per meter cubed) = 1.130704

viscosity (meters squared per second) = 1.610615E-05

Atmospheric pressure (Pascals) = 95710

Velocity of undisturbed free stream (Uref, in m/s) = 27.70171

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (κ) = 4.089445E-03

Estimated momentum thickness Reynolds number = 7033.625

Location of traverse: $X/T = 3.187$ $Z/T = -1.2802$ (Plane 8, $S/T = 1.05$)

Y/T	v_w/U_{ref}^2
4.6034E-03	-1.6664E-04
5.3116E-03	-1.4449E-04
6.3759E-03	-6.8817E-05
7.4363E-03	4.1829E-06
8.4986E-03	-6.7454E-05
1.0269E-02	-2.8313E-05
1.2394E-02	-4.3627E-05
1.5227E-02	3.1264E-05
1.8768E-02	1.3636E-04
2.3017E-02	9.8055E-05
2.8683E-02	1.1094E-04
3.5765E-02	1.5798E-04
4.5326E-02	2.1812E-04
5.7011E-02	3.7099E-05
7.2238E-02	1.8351E-04
9.1006E-02	5.3092E-05
1.1579E-01	-4.2430E-05
1.4695E-01	-2.9914E-04
1.8697E-01	-3.6308E-04
2.3796E-01	-4.6564E-04
3.0312E-01	-3.5596E-04

Table F.5-22 Velocity measurements made at $S/T = 1.05$ with the VW system of the laser anemometer, plane 8

File E608770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.1

density (kilograms per meter cubed) = 1.111508

viscosity (meters squared per second) = 1.644007E-05

Atmospheric pressure (Pascals) = 94500

Velocity of undisturbed free stream (Uref, in m/s) = 27.67827

Estimated momentum thickness at $\lambda/T = -2.146$, $Z/T=0$ (a) = 4.090137E-03

Estimated momentum thickness Reynolds number = 6886.099

Location of traverse; $\lambda/T = 3.167$ $Z/T = -1.0807$ (Plane 8, $S/T = 0.85$)

λ/T	$vw/Uref^2$
2.1246E-03	1.1860E-04
2.8327E-03	6.3425E-05
4.2493E-03	4.6453E-05
4.9575E-03	1.1443E-04
6.0198E-03	8.5515E-05
7.7904E-03	1.2933E-04
9.9150E-03	1.2984E-04
1.2748E-02	5.6280E-05
1.6289E-02	-5.0234E-05
2.0538E-02	2.8176E-04
2.6204E-02	1.2182E-04
3.3286E-02	1.0822E-04
4.2847E-02	-2.4179E-05
5.5949E-02	-1.9207E-04
6.9759E-02	-3.4529E-04
8.8527E-02	-5.2019E-04
1.1331E-01	-8.5134E-04
1.4448E-01	-9.6665E-04
1.8449E-01	-8.9595E-04
2.3548E-01	-6.7747E-04
3.0064E-01	-6.3485E-04
3.8385E-01	7.4620E-05

Table F.5-23 Velocity measurements made at $S/T = 0.85$ with the VW system of the laser anemometer, plane 8

File E609770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.2

density (kilograms per meter cubed) = 1.117247

viscosity (meters squared per second) = 1.635988E-05

Atmospheric pressure (Pascals) = 95020

Velocity of undisturbed free stream (Uref, in m/s) = 27.68562

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.08992E-03

Estimated momentum thickness Reynolds number = 6921.321

Location of traverse; X/T = 3.187 Z/T = -.98015 (Plane 8, S/T = 0.75)

Y/T	vw/Uref2
3.7161E-03	6.6710E-05
4.4263E-03	6.1618E-05
5.4887E-03	7.1134E-05
6.5510E-03	2.9463E-04
7.6133E-03	1.9645E-04
9.2839E-03	1.9976E-04
1.1508E-02	1.4981E-04
1.4341E-02	2.9359E-05
1.7882E-02	1.7435E-04
2.2132E-02	1.4453E-04
2.7797E-02	1.2779E-04
3.4880E-02	1.5646E-04
4.4441E-02	-1.4017E-05
5.6126E-02	-3.8535E-05
7.1353E-02	-2.3117E-04
9.0120E-02	-4.0653E-04
1.1491E-01	-5.2239E-04
1.4607E-01	-1.0041E-03
1.8608E-01	-1.0466E-03
2.3708E-01	-7.6557E-04
3.0223E-01	-2.6395E-04

Table F.5-24 Velocity measurements made at S/T = 0.75 with the VW system of the laser anemometer, plane 8

File E610776.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.4

density (kilograms per meter cubed) = 1.113555

viscosity (meters squared per second) = 1.642266E-05

Atmospheric pressure (Pascals) = 94770

Velocity of undisturbed free stream (Uref, in m/s) = 27.67857

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.090129E-03

Estimated momentum thickness Reynolds number = 6893.459

Location of traverse; $X/T = 3.187$ $Z/T = -.88015$ (Plane 8, $S/T = 0.65$)

Y/T	vw/Uref2
3.5411E-05	4.1013E-05
4.2493E-03	8.1131E-05
5.3116E-02	-3.9022E-05
6.3739E-03	1.3073E-04
7.4363E-03	-7.4218E-05
9.2068E-03	-1.1033E-04
1.1331E-02	1.0552E-04
1.4164E-02	-1.6631E-04
1.7705E-02	-1.8200E-04
2.1955E-02	-2.1860E-04
2.7620E-02	-1.2877E-04
3.4703E-02	-7.9516E-05
4.4263E-02	-2.5817E-04
5.5949E-02	-3.8156E-04
7.1176E-02	-4.4183E-04
8.9943E-02	-5.5192E-04
1.1473E-01	-6.8076E-04
1.4766E-01	-5.2716E-04
1.8591E-01	-2.9448E-04
2.3690E-01	-9.1973E-05
3.0205E-01	5.0810E-06

Table F.5-25 Velocity measurements made at $S/T = 0.65$ with the VW system of the laser anemometer, plane 8

File E611770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.5

density (kilograms per meter cubed) = 1.107659

viscosity (meters squared per second) = 1.651438E-05

Atmospheric pressure (Pascals) = 94300

Velocity of undisturbed free stream (Uref, in m/s) = 27.7151

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.08905E-03

Estimated momentum thickness Reynolds number = 6862.409

Location of traverse; $X/T = 3.187$ $Z/T = -.76015$ (Plane 8, $S/T = 0.55$)

Y/T	v_w/U_{ref}^2
1.2394E-03	1.2620E-04
1.9476E-03	-1.5646E-05
3.0099E-03	-6.2460E-05
3.7181E-03	-4.3789E-04
5.1346E-03	1.5622E-04
6.9051E-03	3.8841E-06
9.0297E-03	-1.5168E-04
1.1863E-02	-1.9235E-04
1.5404E-02	-1.5816E-05
2.0361E-02	-4.3827E-04
2.5319E-02	-2.4464E-04
3.2401E-02	-2.6993E-04
4.1962E-02	-3.1663E-04
5.3647E-02	-4.8526E-04
6.8874E-02	-6.5611E-04
8.7642E-02	-7.3630E-04
1.1243E-01	-7.2692E-04
1.4359E-01	-6.1835E-04
1.8360E-01	-4.2460E-04
2.3460E-01	-9.3692E-05
3.0011E-01	9.8082E-05

Table F.5-26 Velocity measurements made at $S/T = 0.55$ with the VW system of the laser anemometer, plane 8

File E612770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.7

density (kilograms per meter cubed) = 1.102922

viscosity (meters squared per second) = 1.659393E-05

Atmospheric pressure (Pascals) = 93960

Velocity of undisturbed free stream (Uref, in m/s) = 27.73453

Estimated momentum thickness at X/T = -2.146, Z/T=0 (x) = 4.088476E-03

Estimated momentum thickness Reynolds number = 6833.34

Location of traverse; X/T = 3.187 Z/T = -.68015 (Plane 8, S/T = 0.45)

Y/T	vw/Uref2
3.7181E-03	-2.3938E-04
4.4263E-03	-1.4744E-04
5.4827E-03	-2.9104E-04
6.9051E-03	-1.9549E-04
7.9674E-03	2.0585E-04
9.3839E-03	-2.0189E-04
1.1508E-02	8.9331E-05
1.4341E-02	7.8461E-05
1.7882E-02	-1.5913E-04
2.2132E-02	-2.8313E-04
2.7797E-02	-2.1421E-04
3.4880E-02	-3.1625E-04
4.4441E-02	-3.8719E-04
5.6126E-02	-5.0995E-04
7.1353E-02	-4.9929E-04
9.0120E-02	-5.3377E-04
1.1491E-01	-4.1386E-04
1.4607E-01	-5.1859E-04
1.8608E-01	-4.5474E-04
2.3708E-01	-1.8409E-04
3.0223E-01	4.4140E-05

Table F.5-27 Velocity measurements made at S/T = 0.45 with the VW system of the laser anemometer, plane 8

File E613770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.2

density (kilograms per meter cubed) = 1.104078

viscosity (meters squared per second) = 1.655501E-05

Atmospheric pressure (Pascals) = 93900

Velocity of undisturbed free stream (Uref, in m/s) = 27.76105

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087695E-03

Estimated momentum thickness Reynolds number = 6854.642

Location of traverse; X/T = 3.187 Z/T = -.58015 (Plane 8, S/T = 0.35)

Y/T	v _w /Uref ²
3.5411E-03	-2.4271E-04
4.2453E-03	-9.2611E-05
5.3116E-03	-9.5148E-06
6.3739E-03	4.2003E-05
7.4363E-03	-3.2470E-05
9.2068E-03	-1.8955E-04
1.1331E-02	-1.4265E-04
1.4164E-02	-2.3833E-04
1.7705E-02	-2.4465E-04
2.1955E-02	-3.8554E-04
2.7620E-02	-1.7920E-04
3.4703E-02	-2.7418E-04
4.4263E-02	-3.0755E-04
5.5949E-02	-2.9028E-04
7.1176E-02	-3.1659E-04
8.9943E-02	-2.1867E-04
1.1473E-01	-2.8903E-04
1.4589E-01	-2.3973E-04
1.8591E-01	-1.8910E-04
2.3690E-01	-1.0684E-04
3.0418E-01	1.4302E-05

Table F.5-28 Velocity measurements made at S/T = 0.35 with the VW system of the laser anemometer, plane 8

File E614770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22.9

density (kilograms per meter cubed) = 1.104609

viscosity (meters squared per second) = 1.653411E-05

Atmospheric pressure (Pascals) = 93850

Velocity of undisturbed free stream (Uref, in m/s) = 27.75976

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087733E-03

Estimated momentum thickness Reynolds number = 6863.056

Location of traverse; X/T = 3.167 Z/T = -.46015 (Plane B, S/T = 0.25)

Y/T	vw/Uref2
3.7181E-03	-3.6813E-04
4.4263E-03	-3.6986E-04
5.4887E-03	-3.8660E-04
6.5510E-03	-2.3933E-04
7.6133E-03	-1.7065E-04
9.3829E-03	-1.9553E-04
1.1508E-02	-2.1897E-04
1.4341E-02	-2.1933E-04
1.8237E-02	-2.8858E-04
2.2132E-02	-1.7474E-04
2.7797E-02	-1.3388E-04
3.4880E-02	-1.0313E-04
4.4441E-02	-9.6598E-05
5.6126E-02	-7.5868E-05
7.1353E-02	-8.0429E-05
9.0120E-02	-8.1452E-05
1.1491E-01	-1.1650E-04
1.4607E-01	-1.2093E-04
1.8608E-01	-9.7557E-05
2.3708E-01	-4.1861E-05
3.0223E-01	-5.2509E-05

Table F.5-29 Velocity measurements made at S/T = 0.25 with the VW system of the laser anemometer, plane B

File E615770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 24.2

density (kilograms per meter cubed) = 1.100246

viscosity (meters squared per second) = 1.665591E-05

Atmospheric pressure (Pascals) = 93890

Velocity of undisturbed free stream (Uref, in m/s) = 27.77714

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.087221E-03

Estimated momentum thickness Reynolds number = 6816.279

Location of traverse; $X/T = 3.187$ $Z/T = -.38015$ (Plane 8, $S/T = 0.15$)

Y/T	vw/Uref2
1.2394E-03	-3.6386E-04
1.9476E-03	-4.0028E-04
3.0099E-03	-4.3196E-04
4.0722E-03	-3.0057E-04
5.1346E-03	-3.0551E-04
6.5510E-03	-2.1393E-04
9.0297E-03	5.1318E-06
1.1863E-02	1.7728E-04
1.5404E-02	-3.6802E-05
1.9653E-02	-7.6629E-05
2.5673E-02	1.9945E-05
3.2755E-02	1.5348E-04
4.1962E-02	2.4884E-04
5.3647E-02	-3.1154E-05
6.8874E-02	4.0588E-05
8.7642E-02	-1.4582E-04
1.1243E-01	-1.7713E-04
1.4359E-01	2.3541E-06
1.8360E-01	1.1918E-05
2.3460E-01	2.0946E-05
2.9975E-01	1.4859E-05

Table F.5-30 Velocity measurements made at $S/T = 0.15$ with the VW system of the laser anemometer, plane 8

F.6 LDV MEASUREMENTS IN PLANE 10

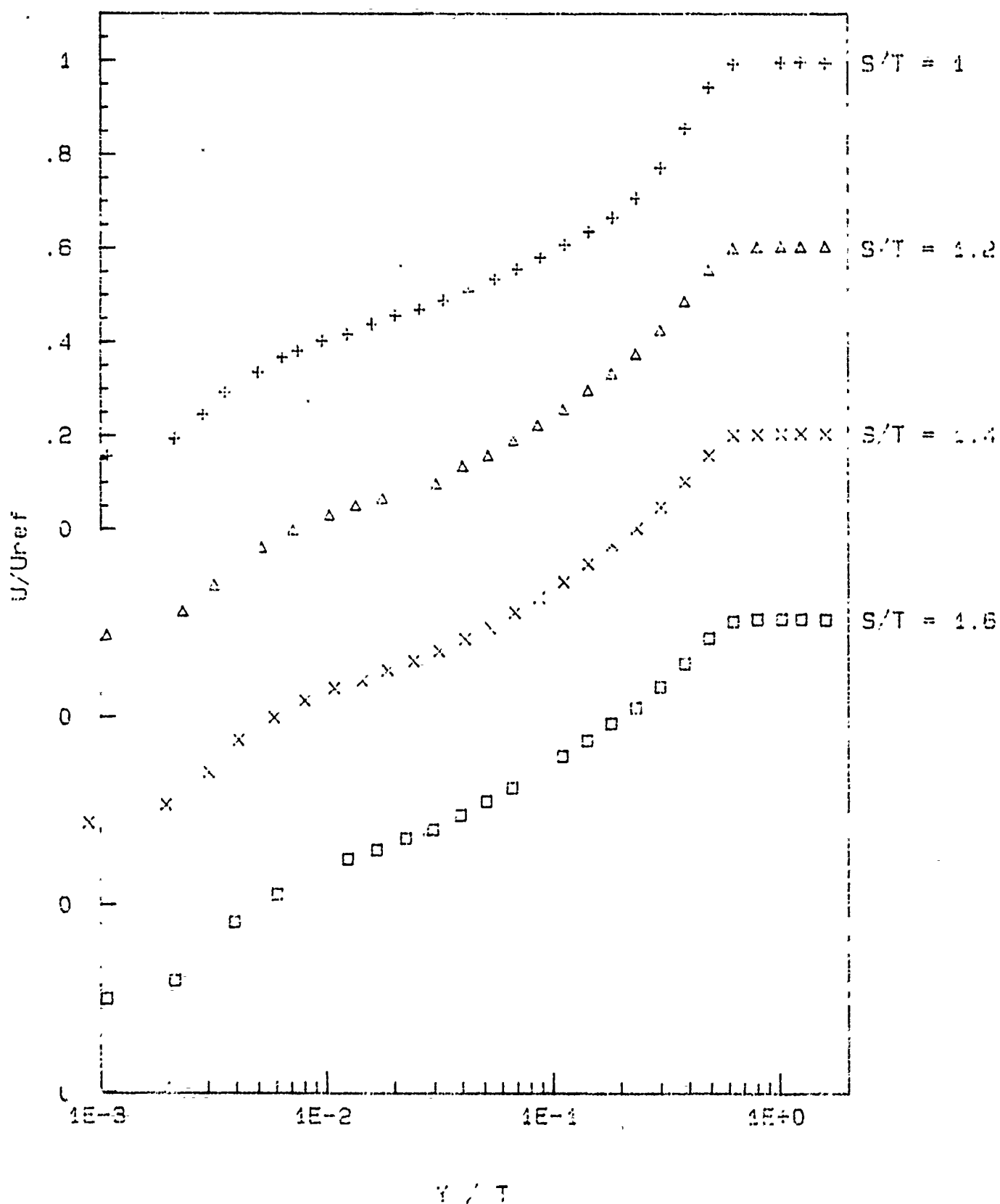


Figure F.6-1(a) Profiles of mean-velocity component U, plane 10.

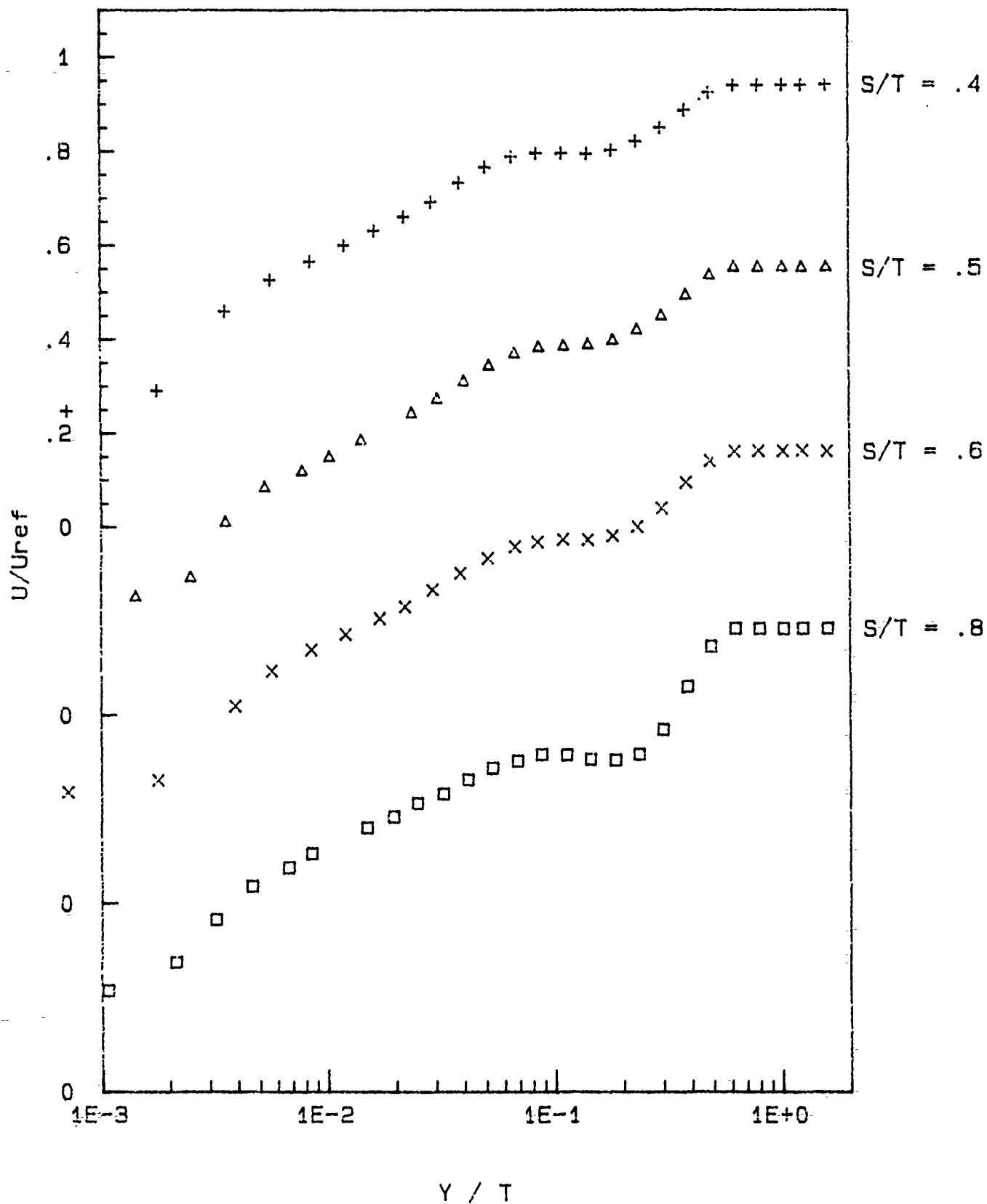


Figure F.6-1(b) Profiles of mean-velocity component U , plane 10.

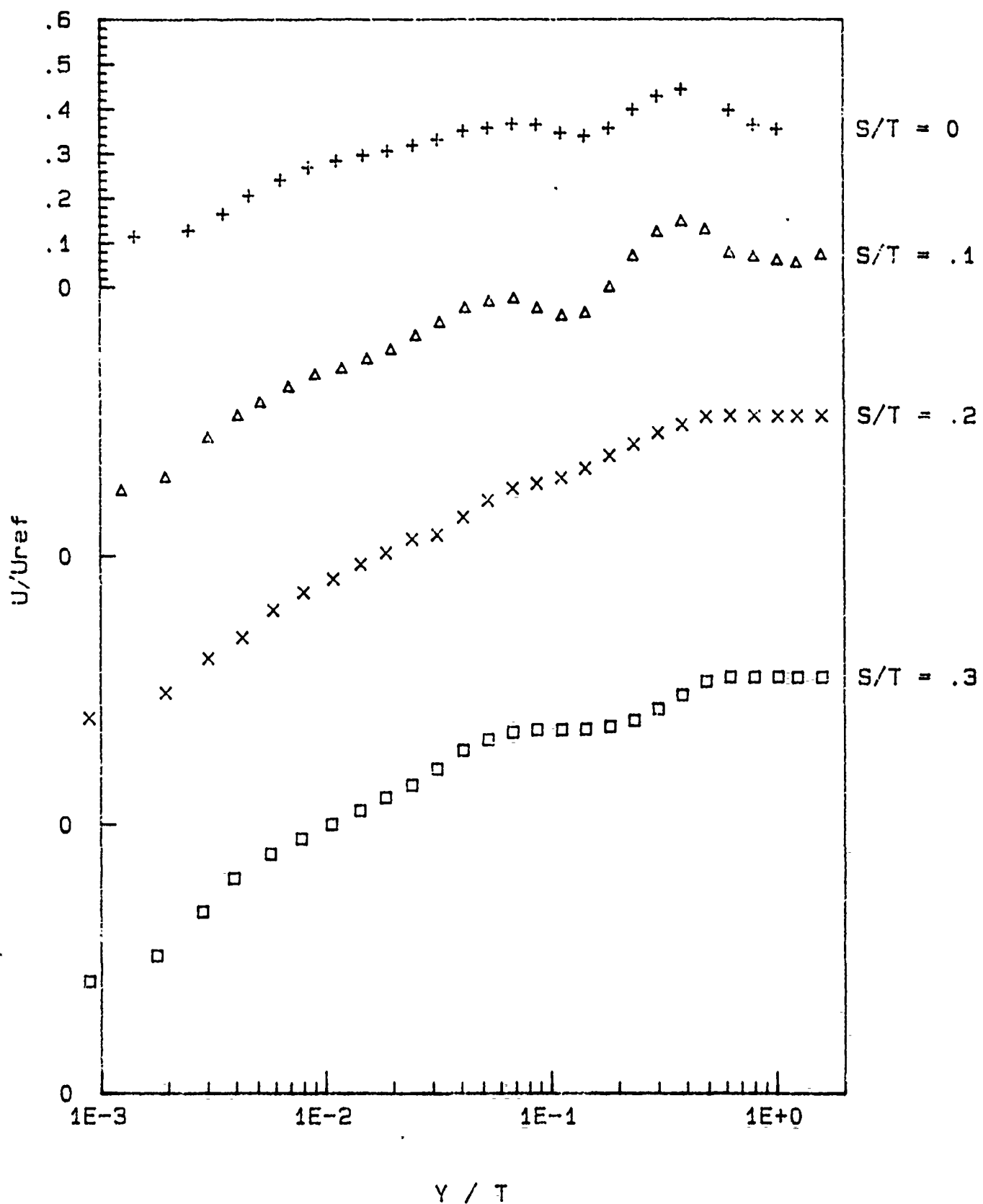


Figure F.6-1(c) Profiles of mean-velocity component U , plane 10.

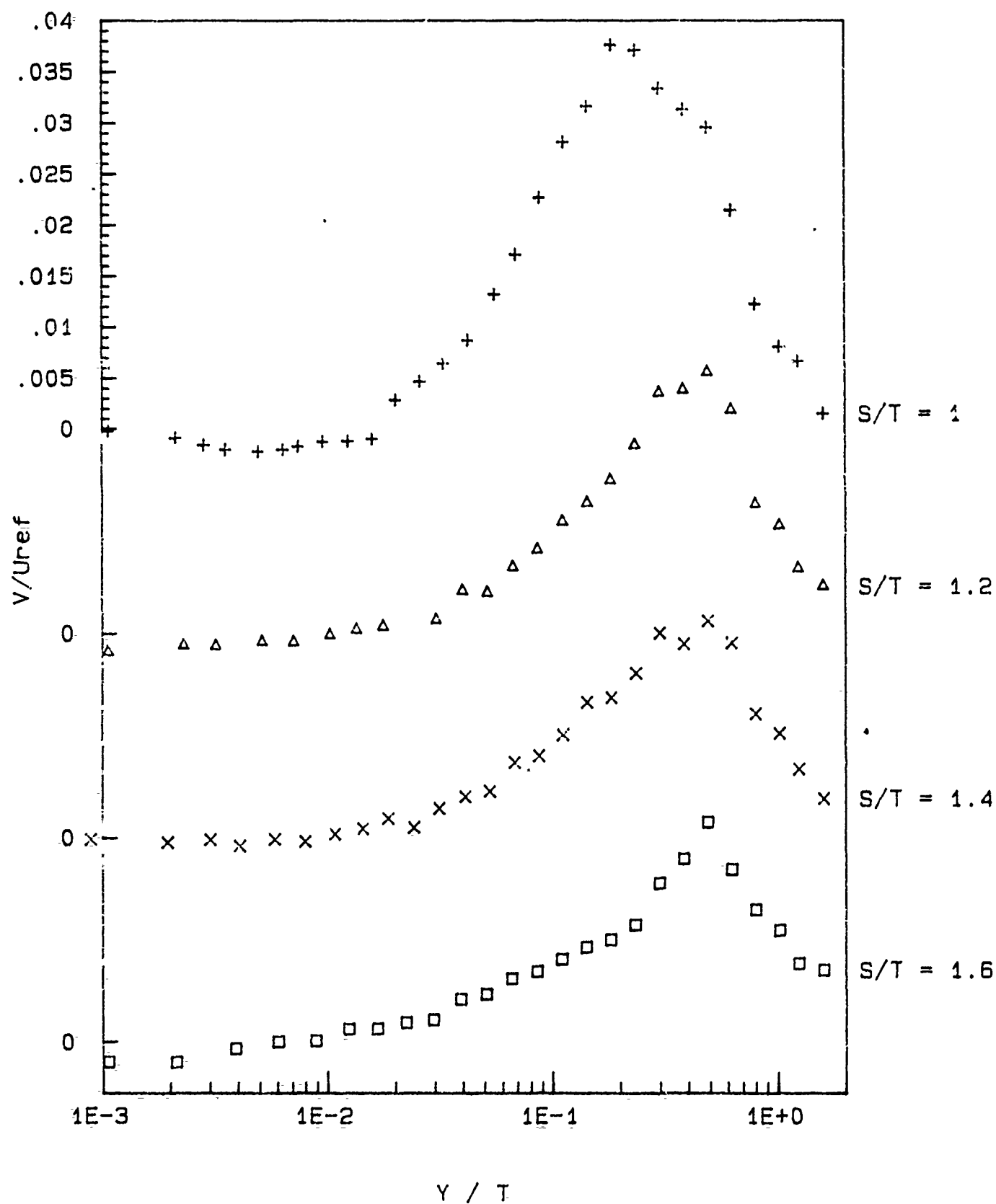


Figure F.6-2(a) Profiles of mean-velocity component V , plane 10.

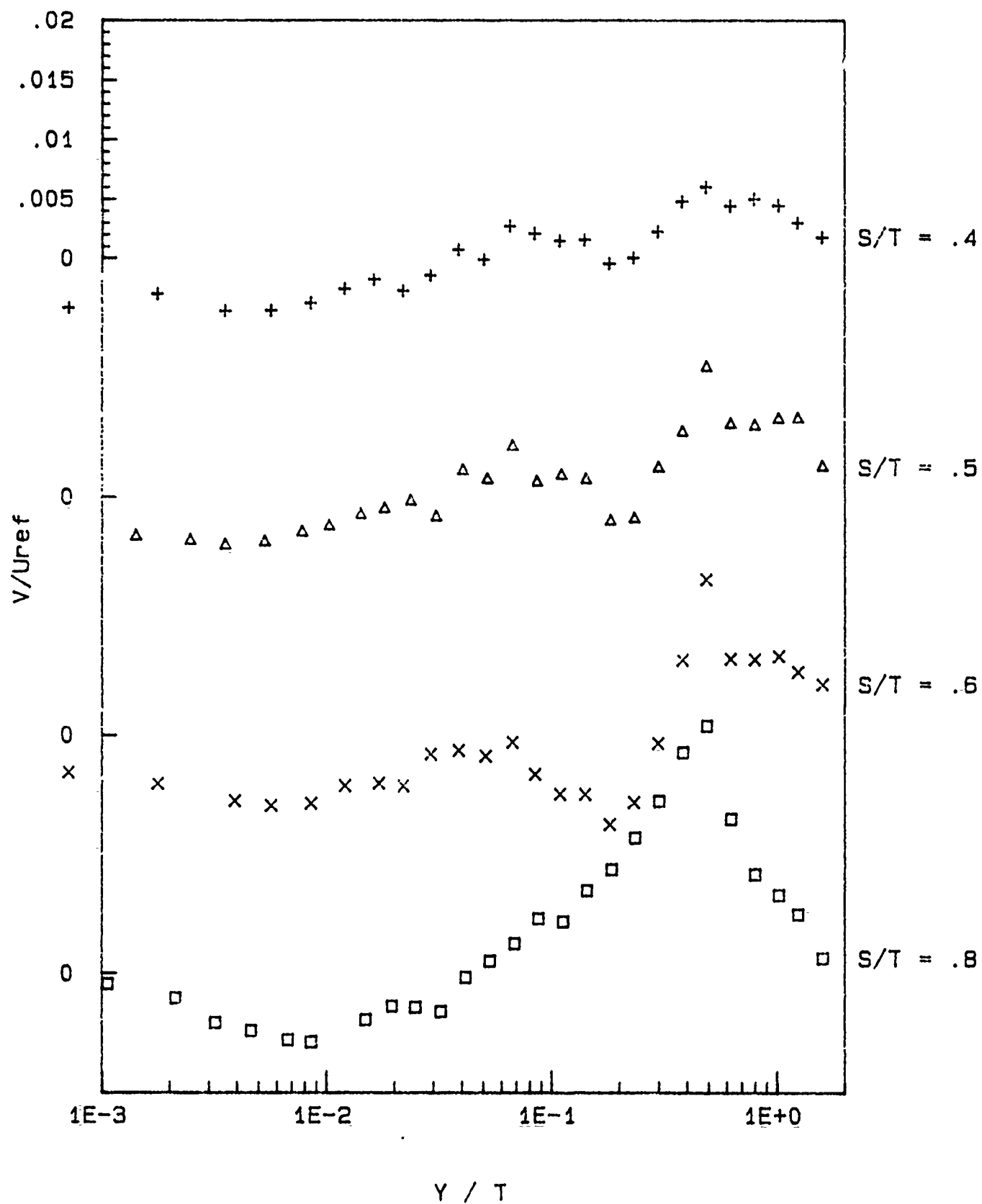


Figure F.6-2(b) Profiles of mean-velocity component V , plane 10.

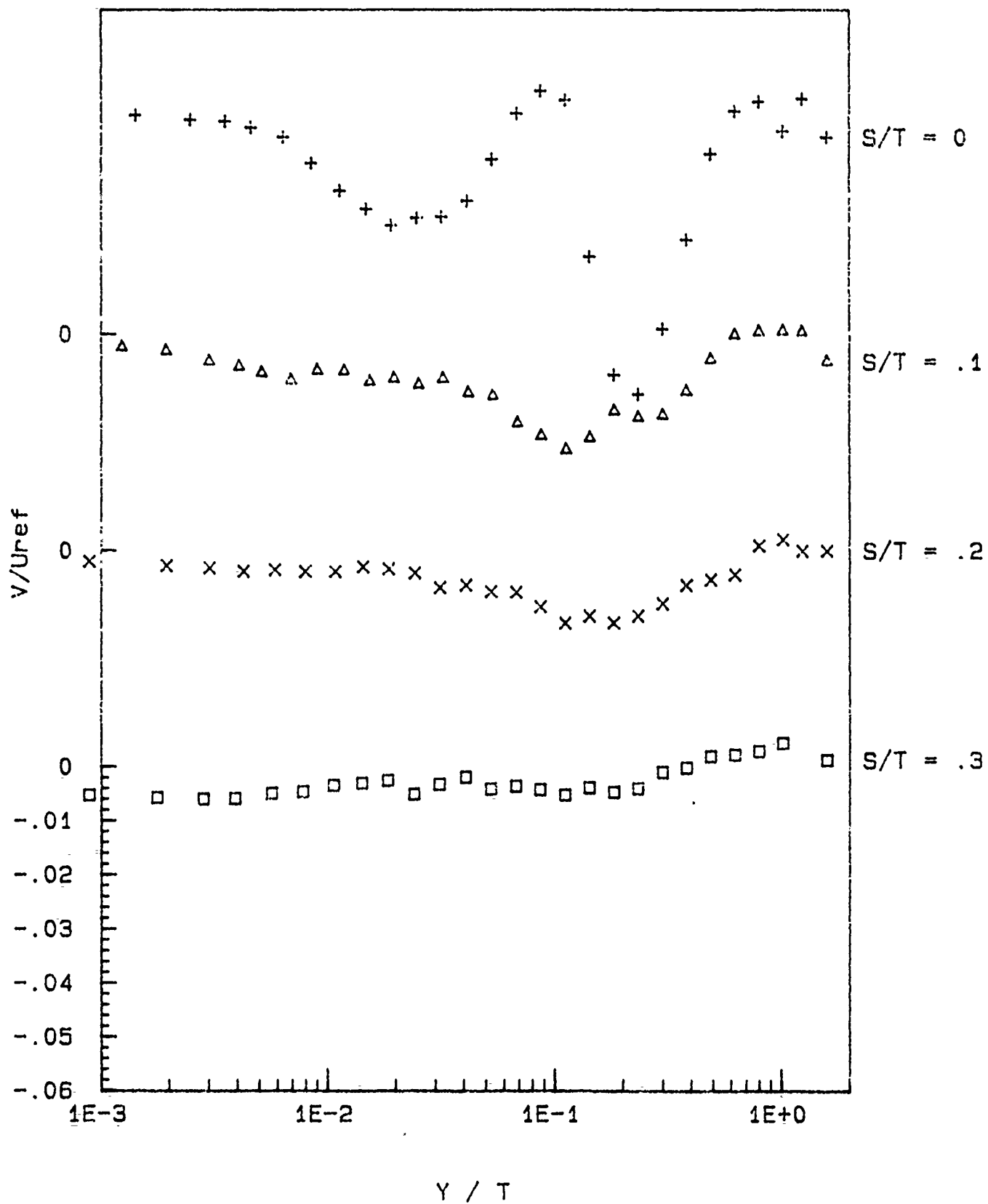


Figure F.6-2(c) Profiles of mean-velocity component V , plane 10.

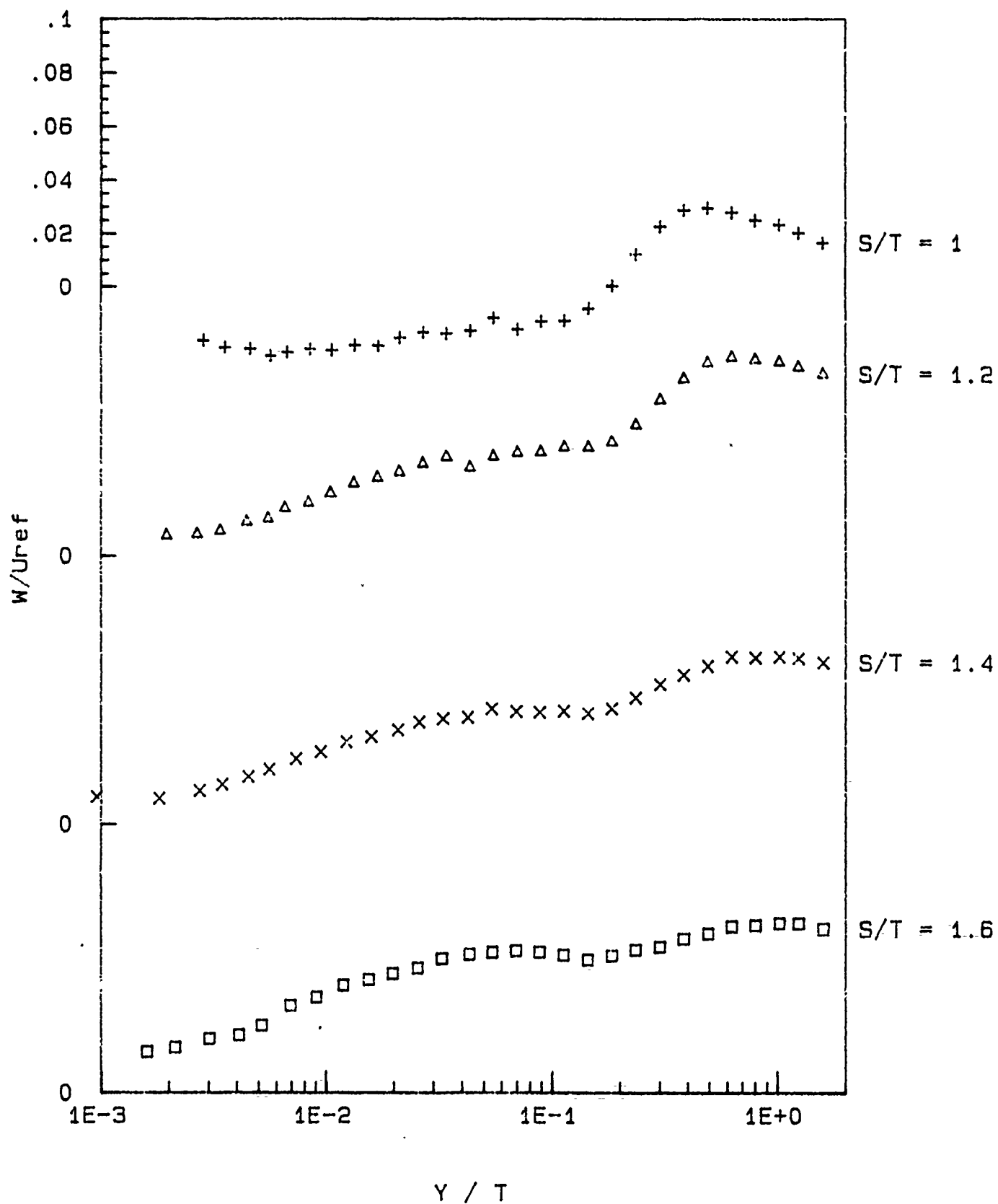


Figure F.6-3(a) Profiles of mean-velocity component W , plane 10.

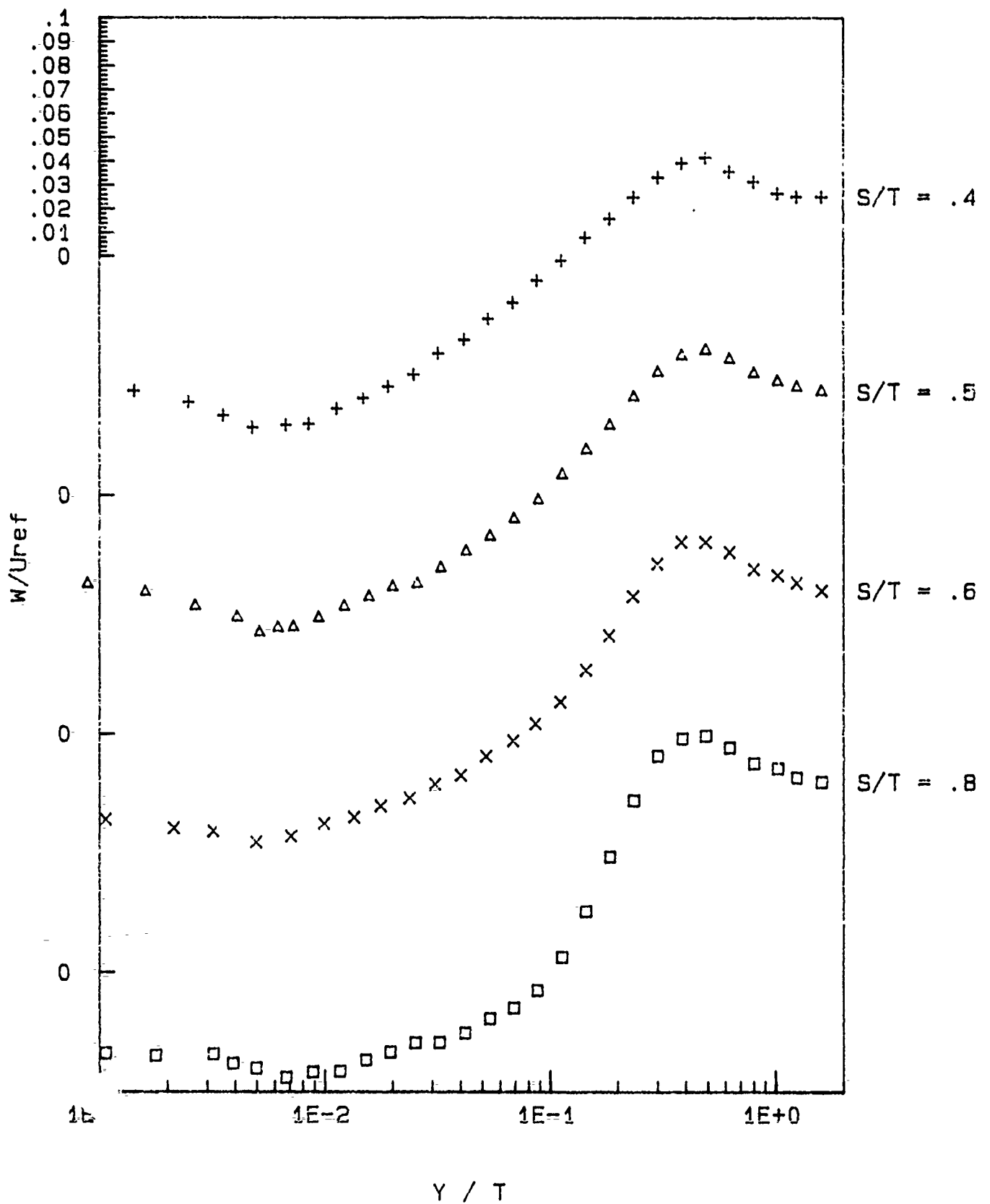


Figure F.6-3(b) Profiles of mean-velocity component W , plane 10.

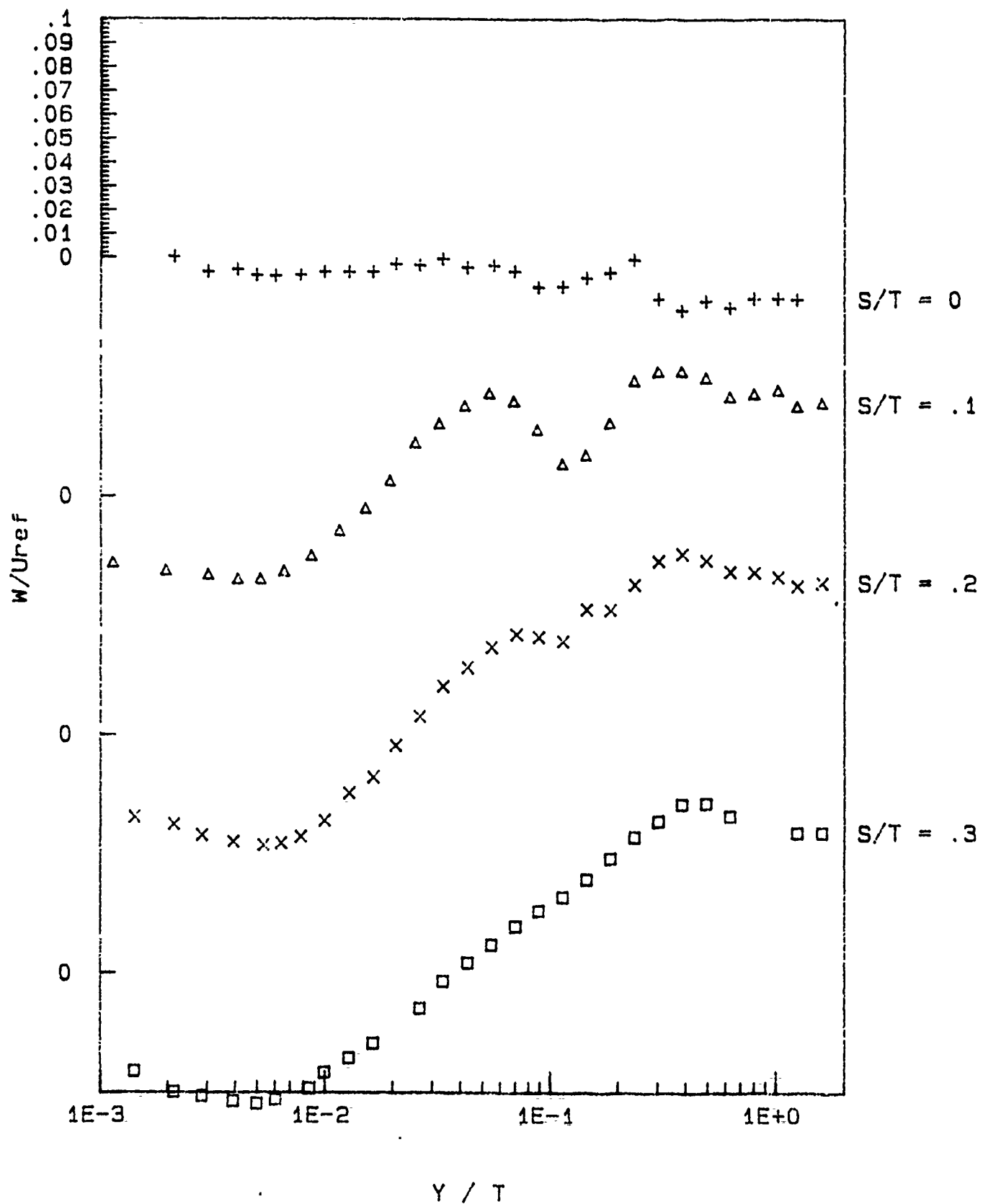


Figure F.6-3(c) Profiles of mean-velocity component W , plane 10.

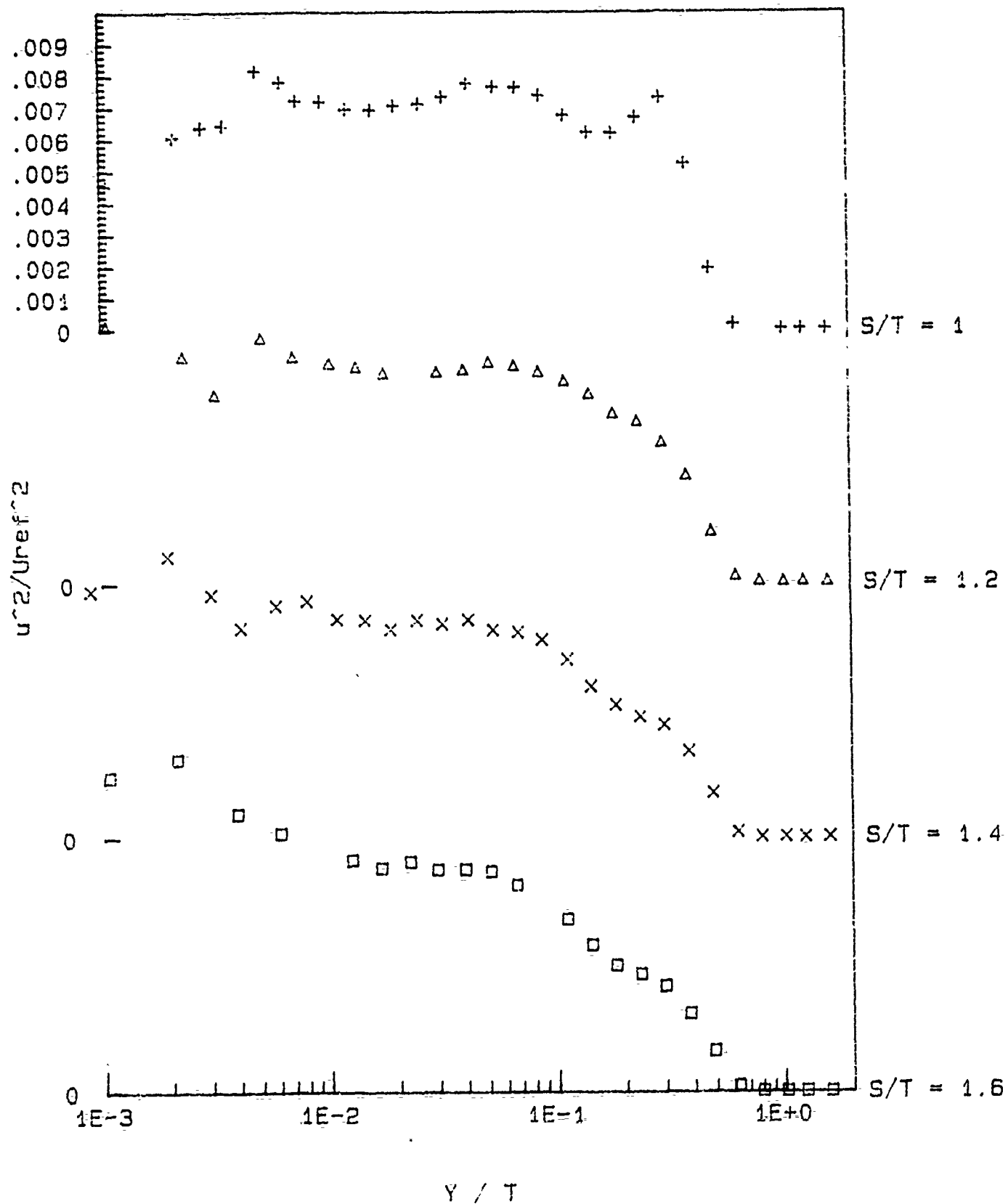


Figure F.6-4(a) Profiles of U component of turbulence normal stress, plane 10.

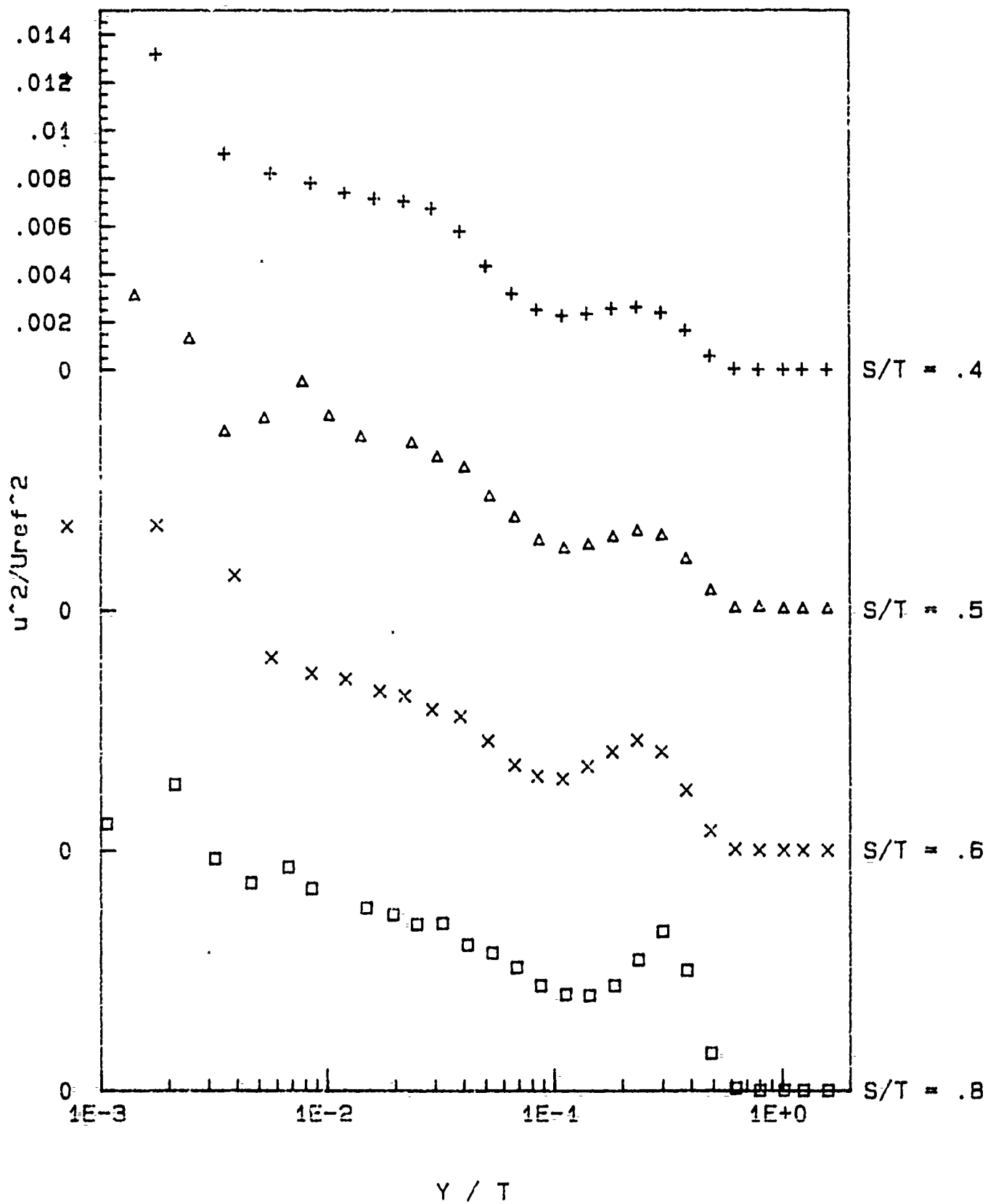


Figure F.6-4(b) Profiles of U component of turbulence normal stress, plane 10.

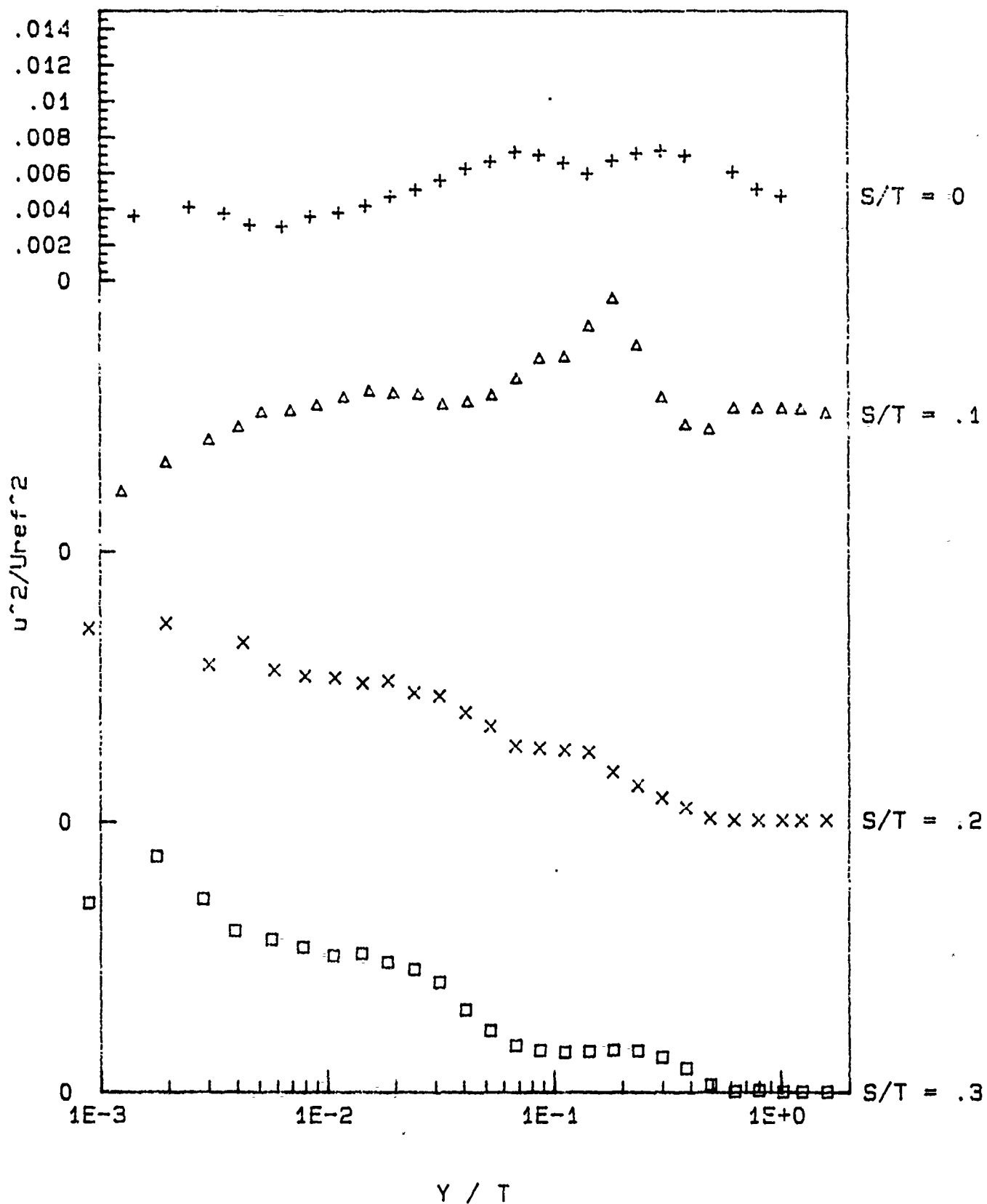


Figure F.6-4(c) Profiles of U component of turbulence normal stress, plane 10.

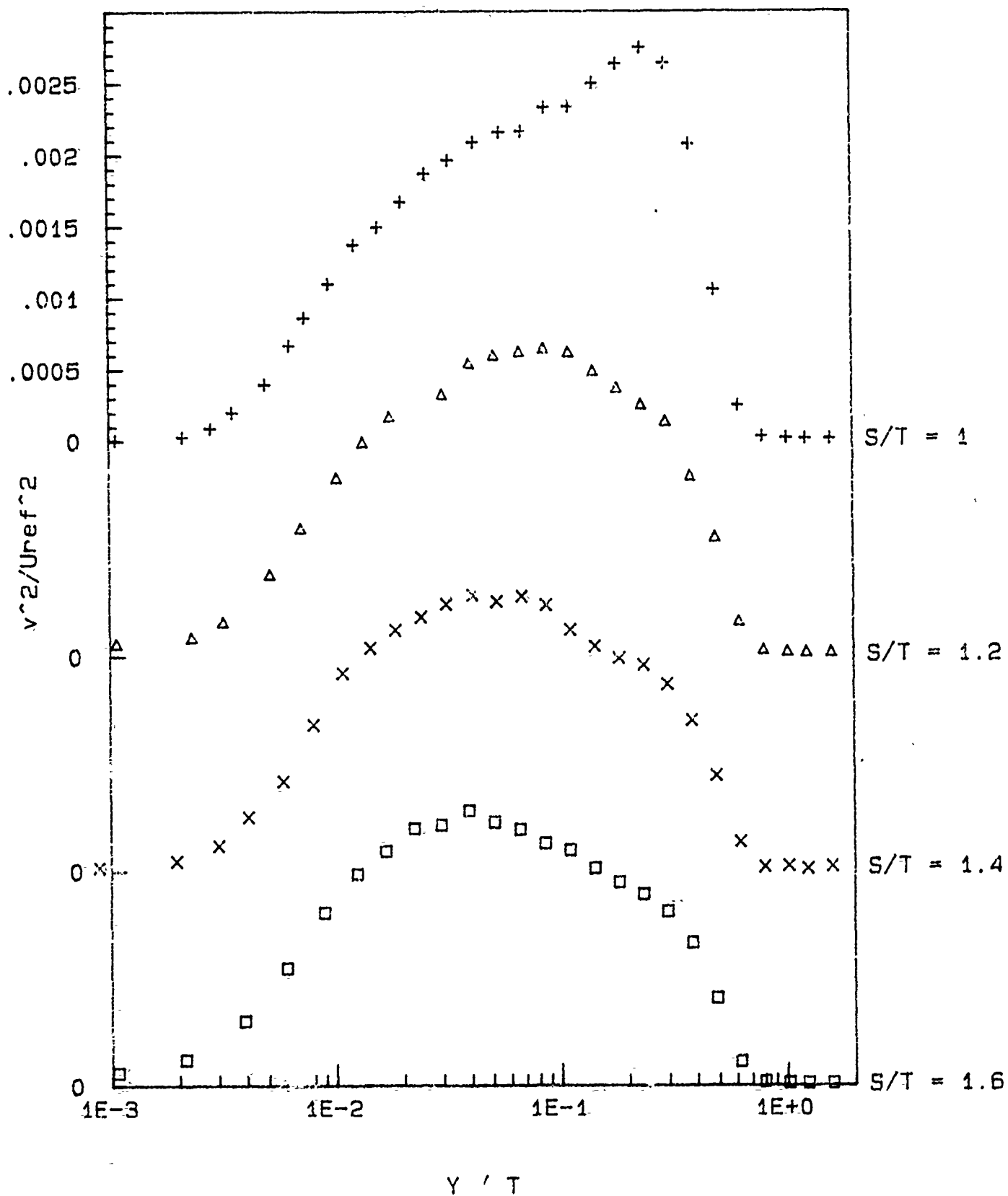


Figure F.6-5(a) Profiles of V component of turbulence normal stress, plane 10.

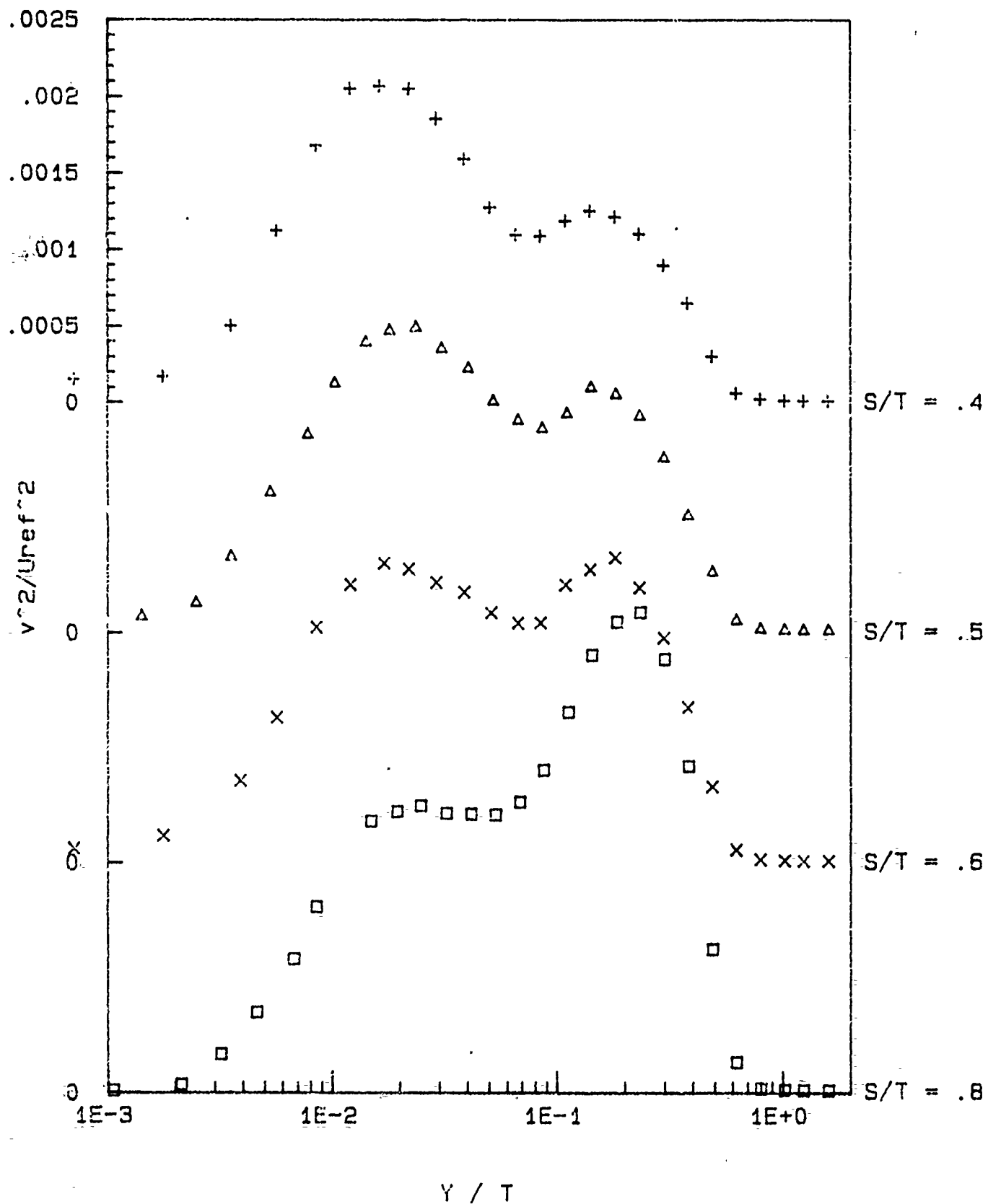


Figure F.6-5(b) Profile of V component of turbulence normal stress, plane 10.

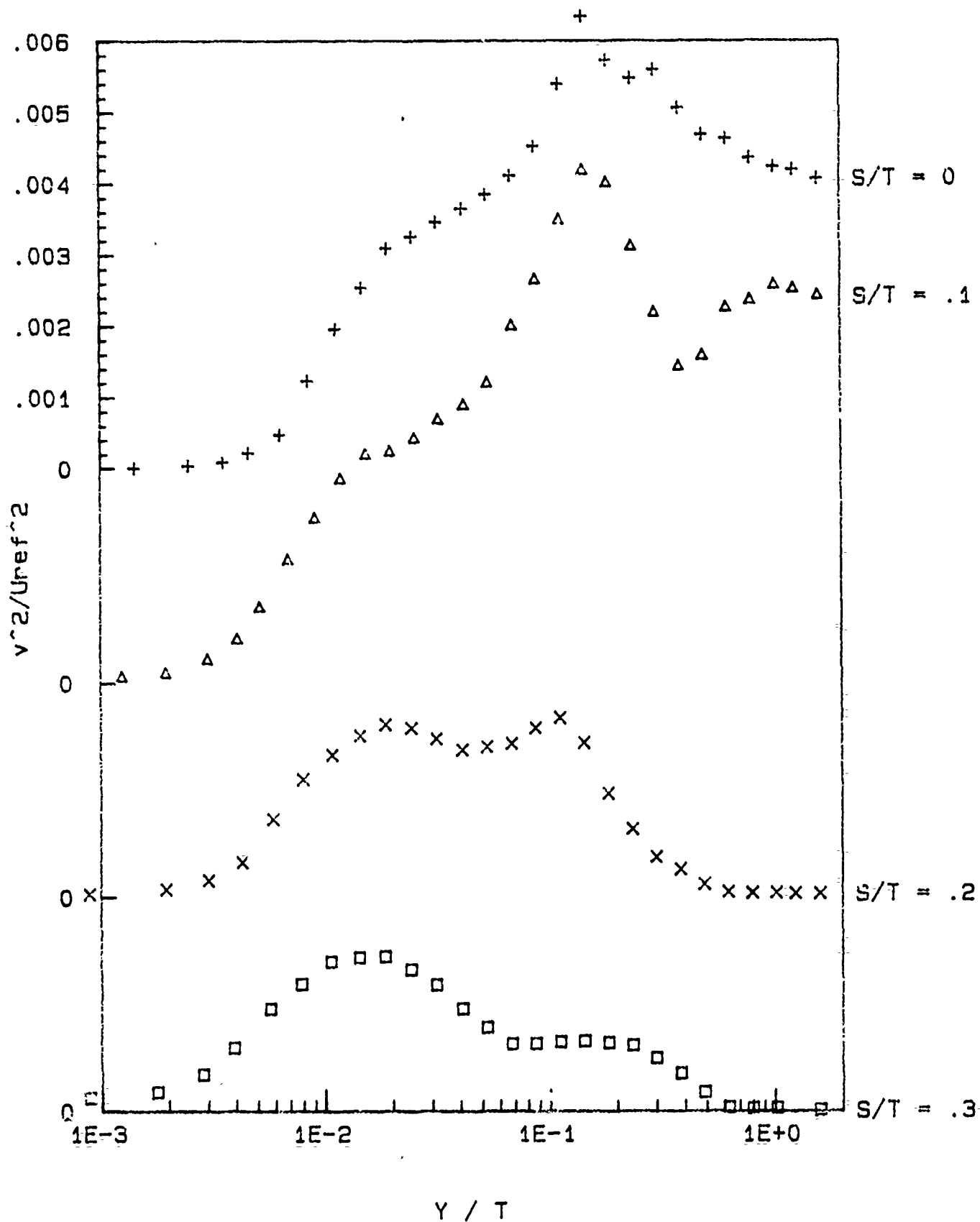


Figure F.6-5(c) Profiles of V component of turbulence normal stress, plane 10.

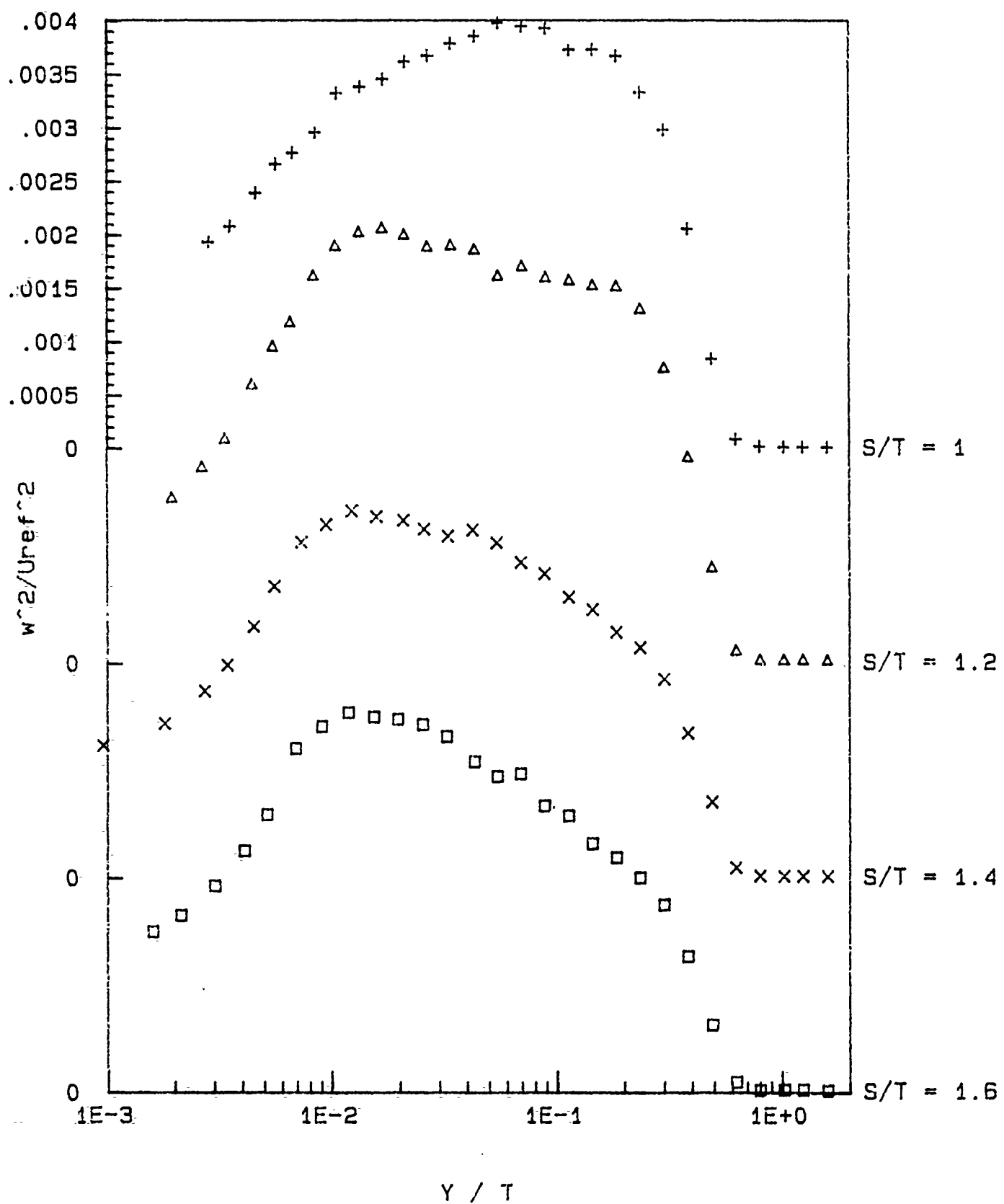


Figure F.6-6(a) Profiles of W component of turbulence normal stress, plane 10.

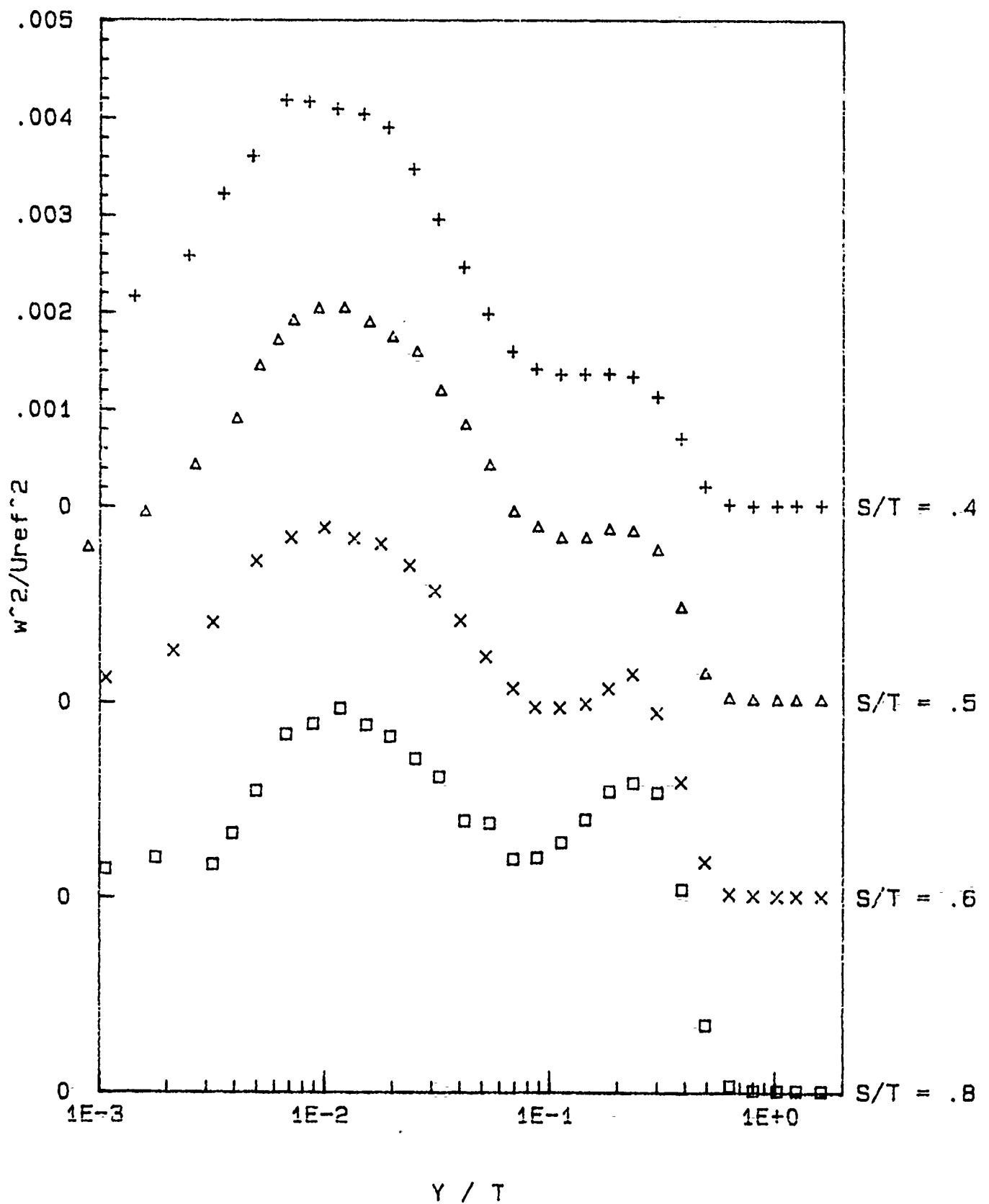


Figure F.6-6(b) Profiles of W component of turbulence normal stress, plane 10.

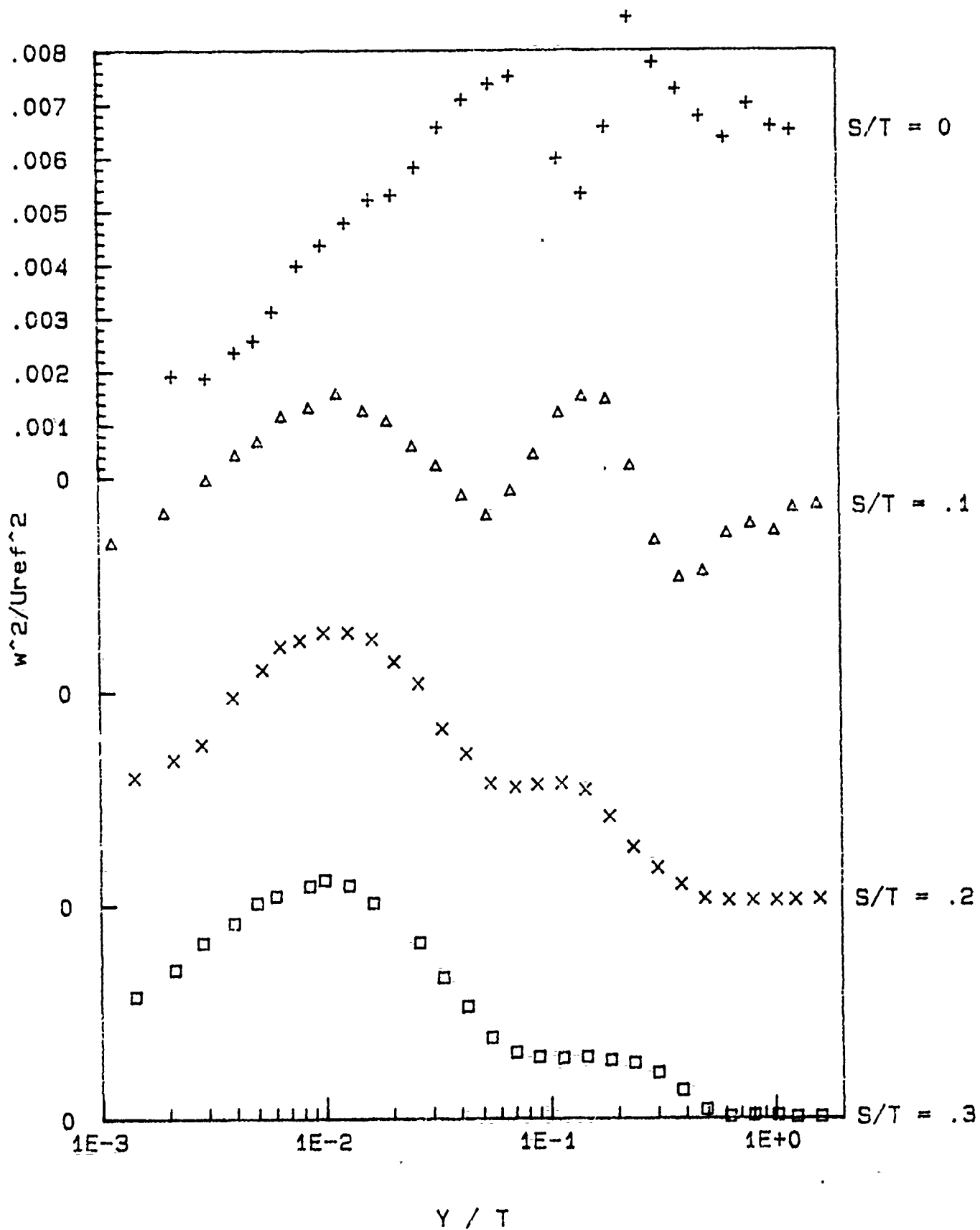


Figure F.6-6(c) Profiles of W component of turbulence normal stress, plane 10.

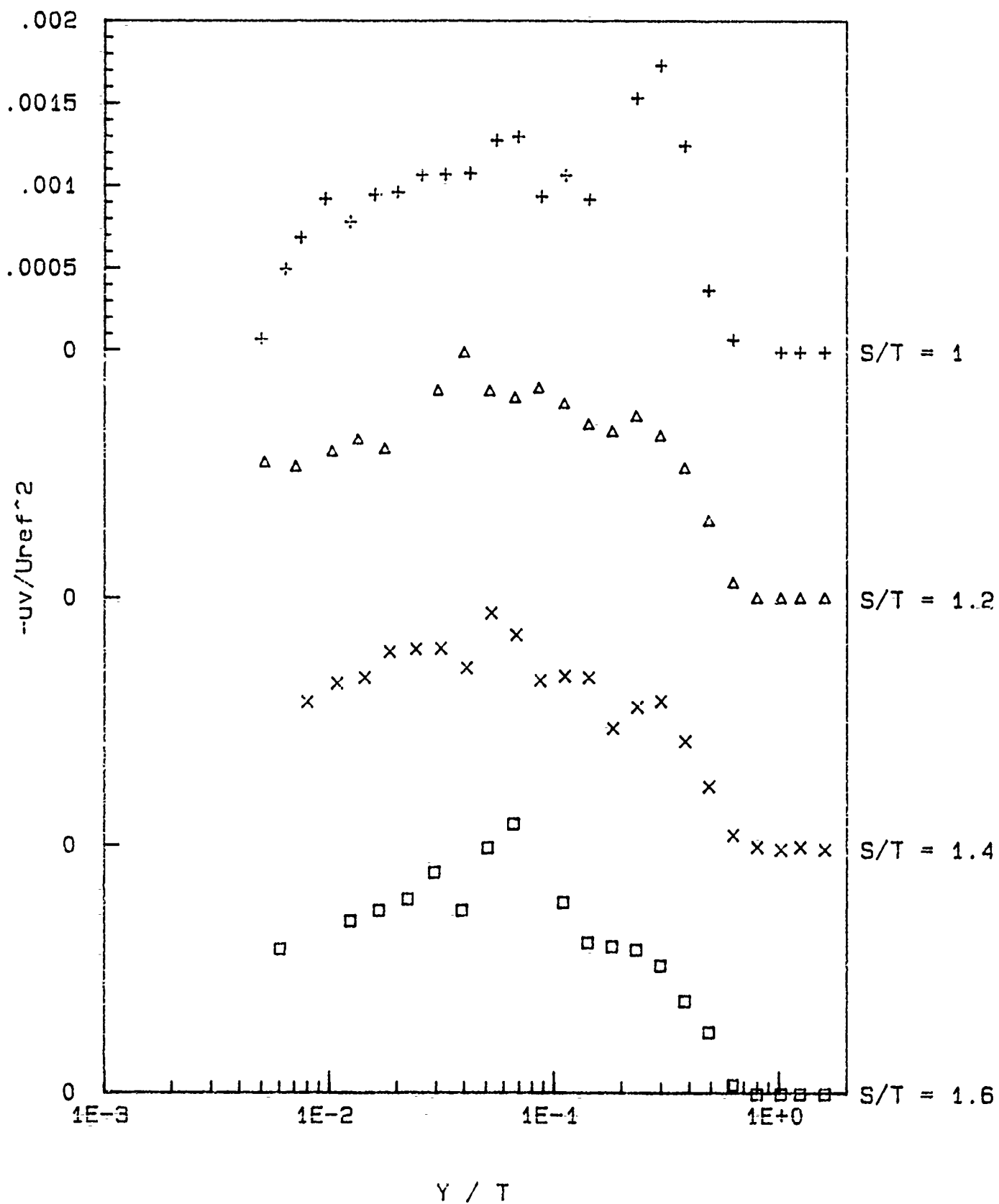


Figure F.6-7(a) Profiles of UV Reynolds shear stress, plane 10.

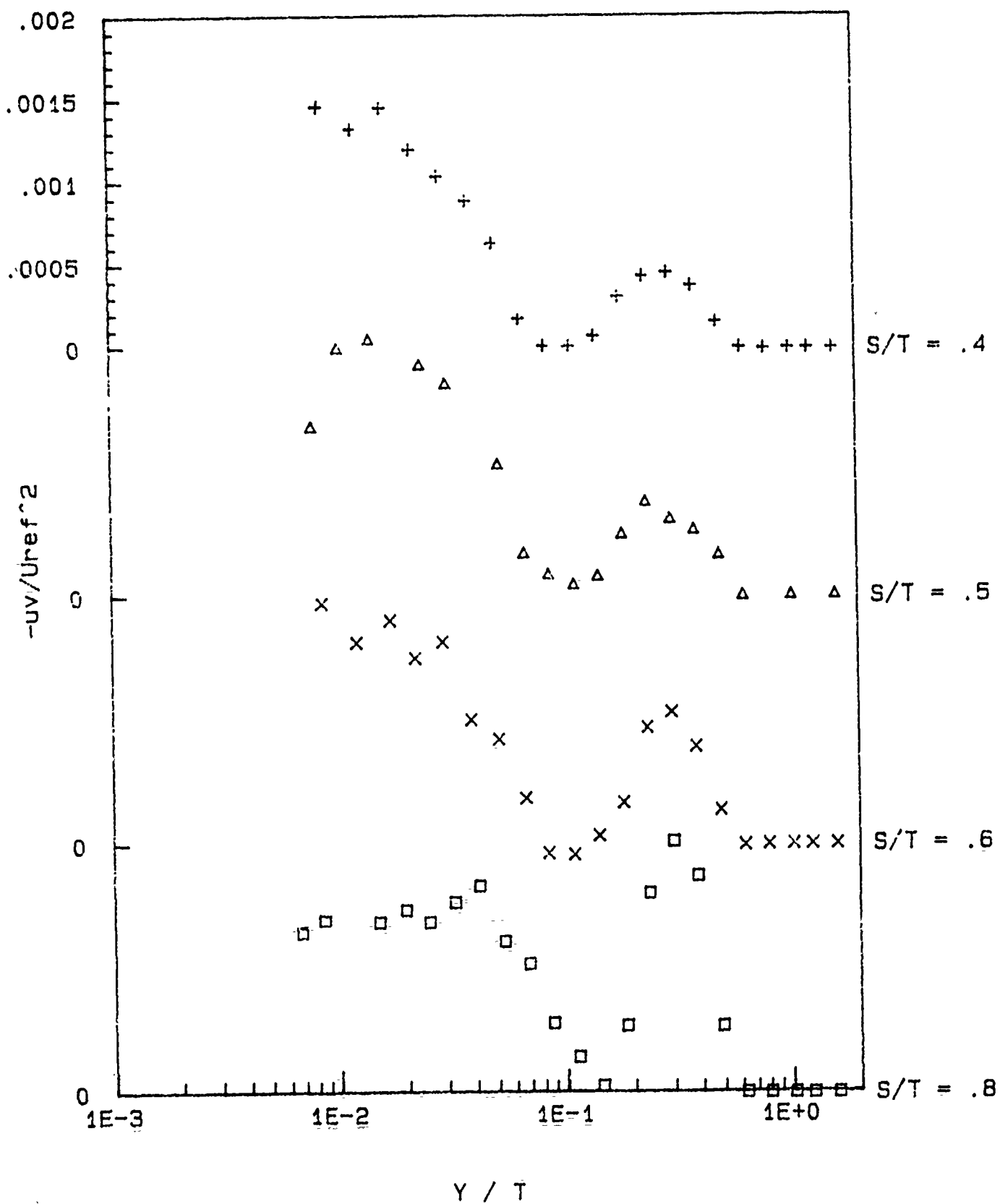


Figure F.6-7(b) Profiles of UV Reynolds shear stress, plane 10.

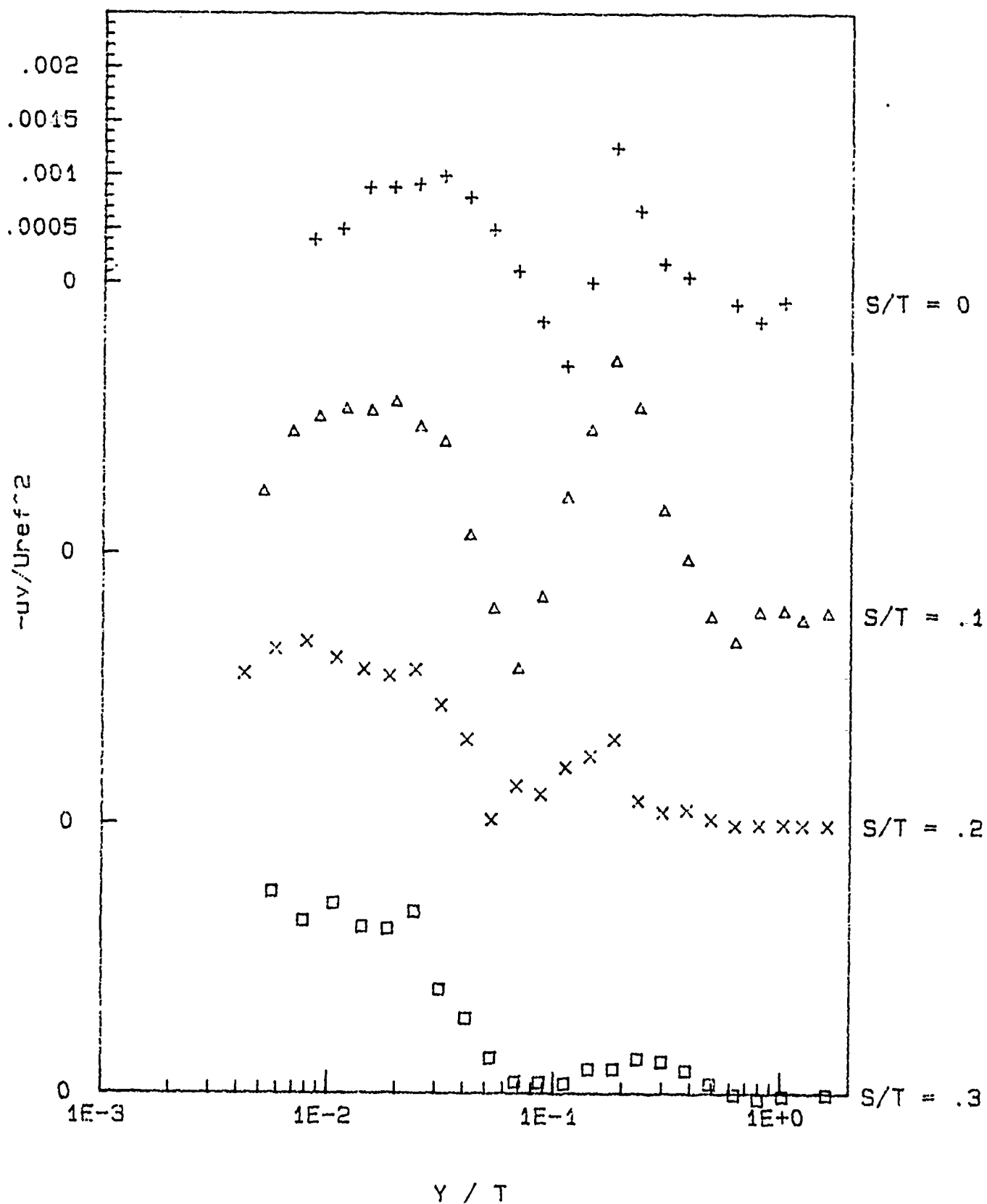


Figure F.6-7(c) Profiles of UV Reynolds shear stress, plane 10.

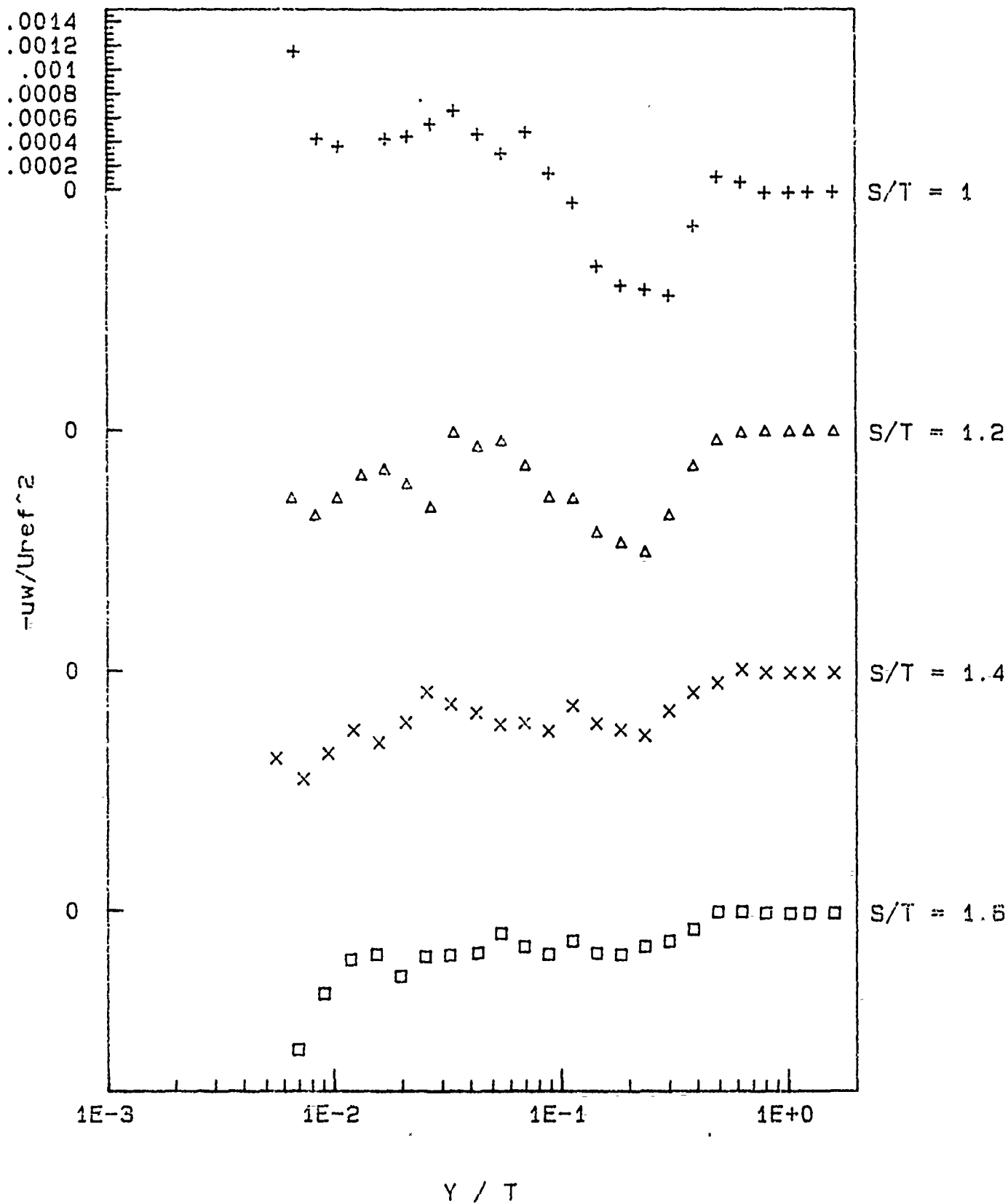


Figure F.6-8(a). Profiles of UW Reynolds shear stress, plane 10.

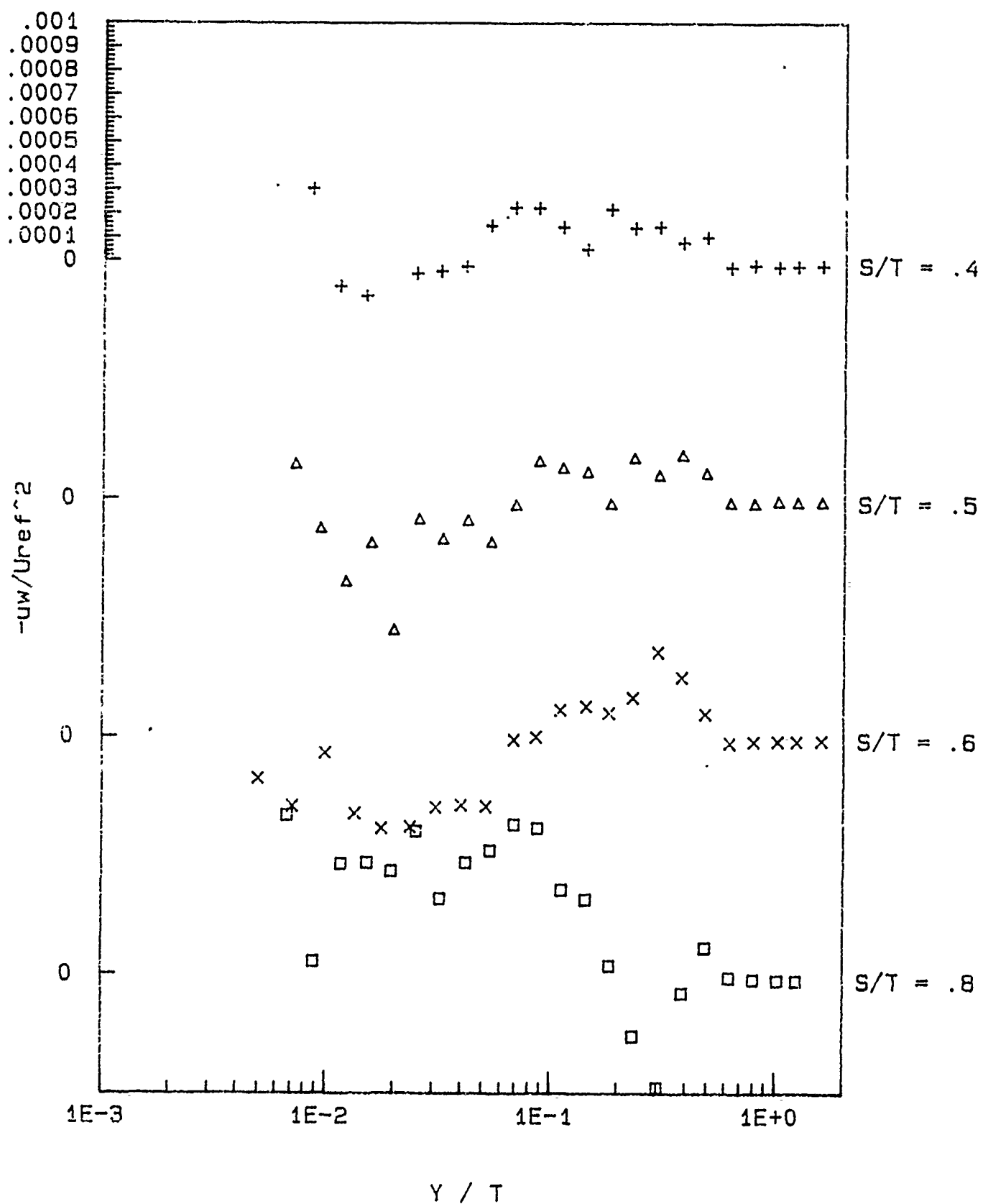


Figure F.6-8(b) Profiles of UW Reynolds shear stress, plane 10.

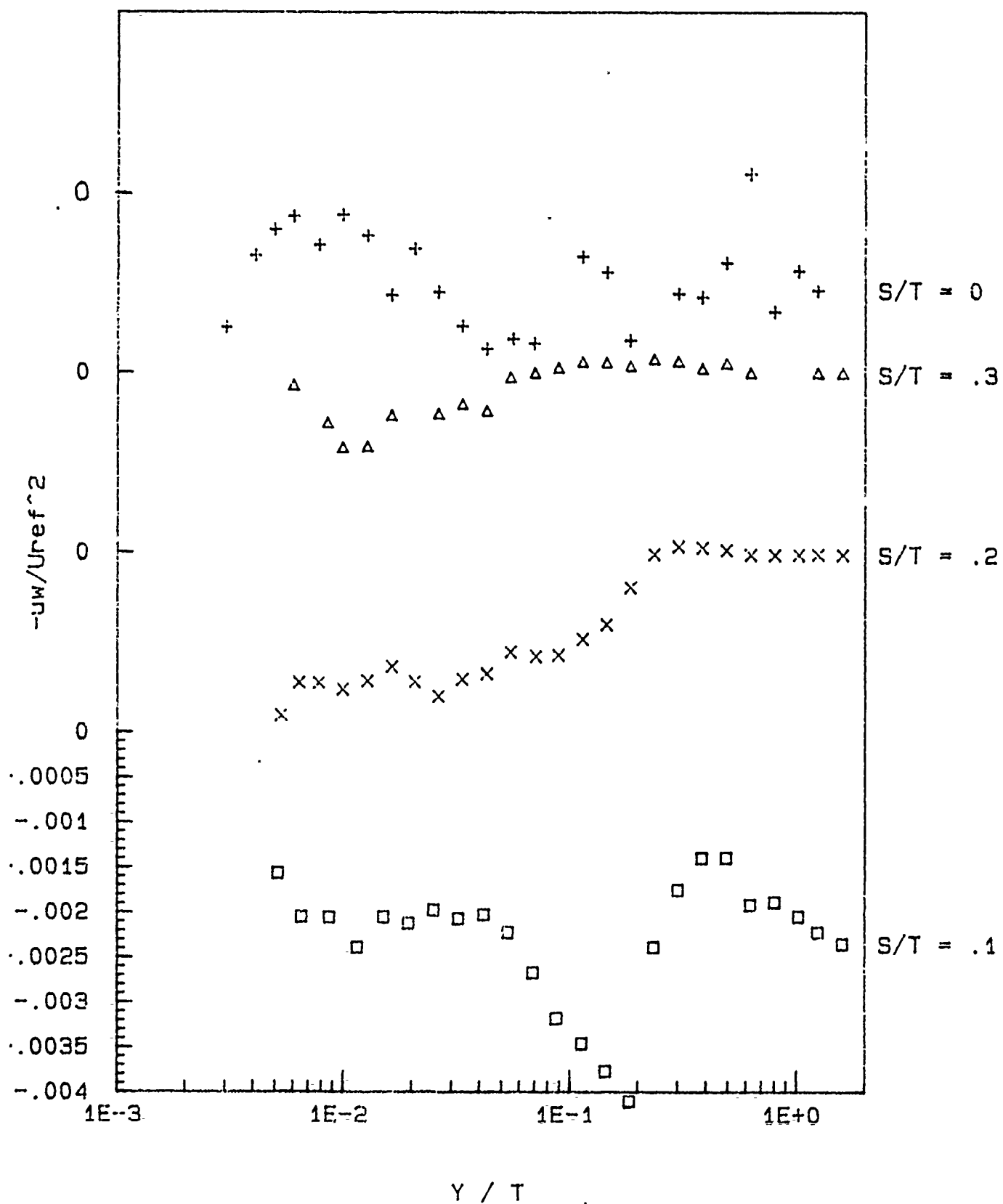


Figure F.6-8(c) Profiles of UW Reynolds shear stress, plane 10.

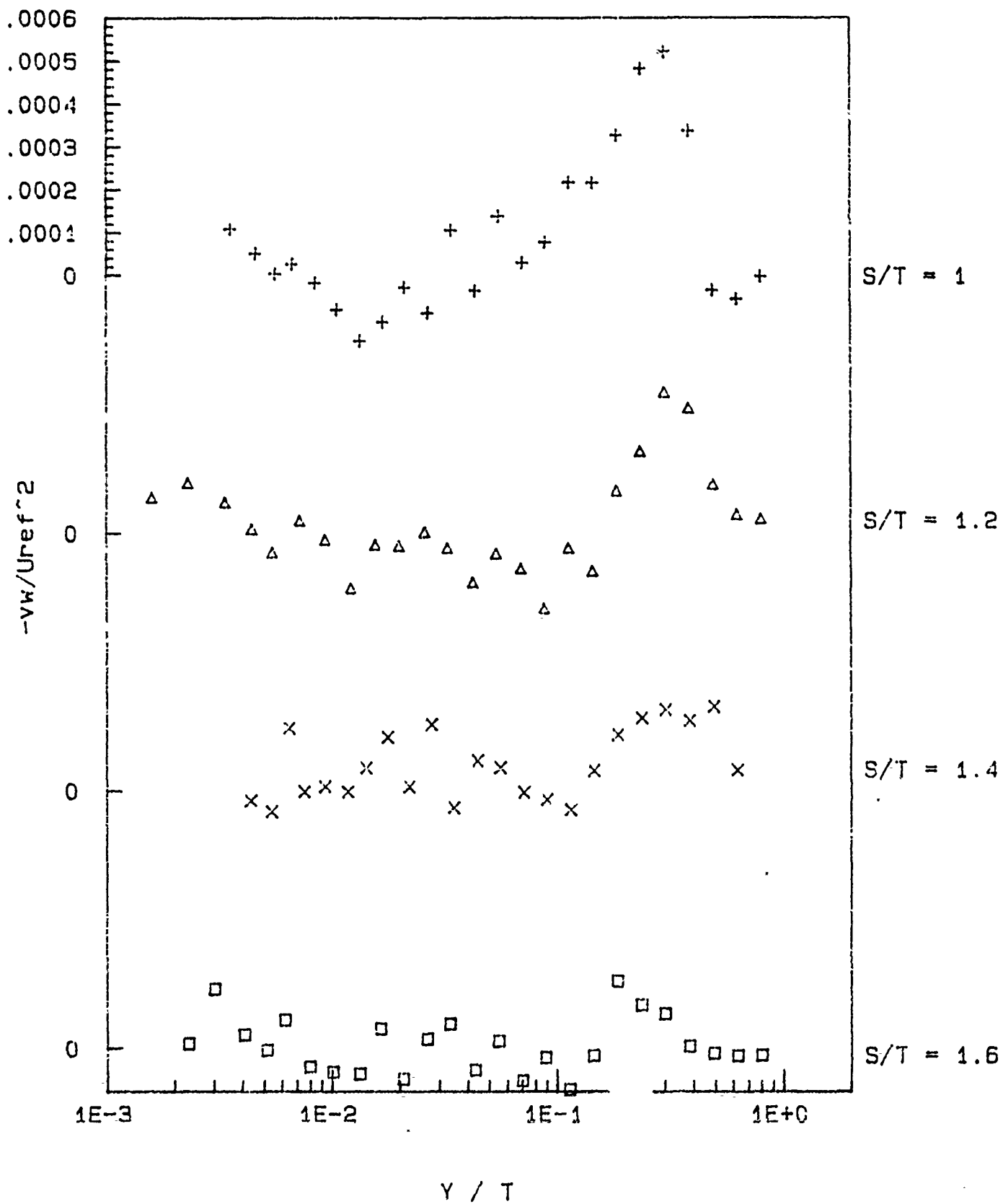


Figure F.6-9(a) Profiles of VW Reynolds shear stress, plane 10.

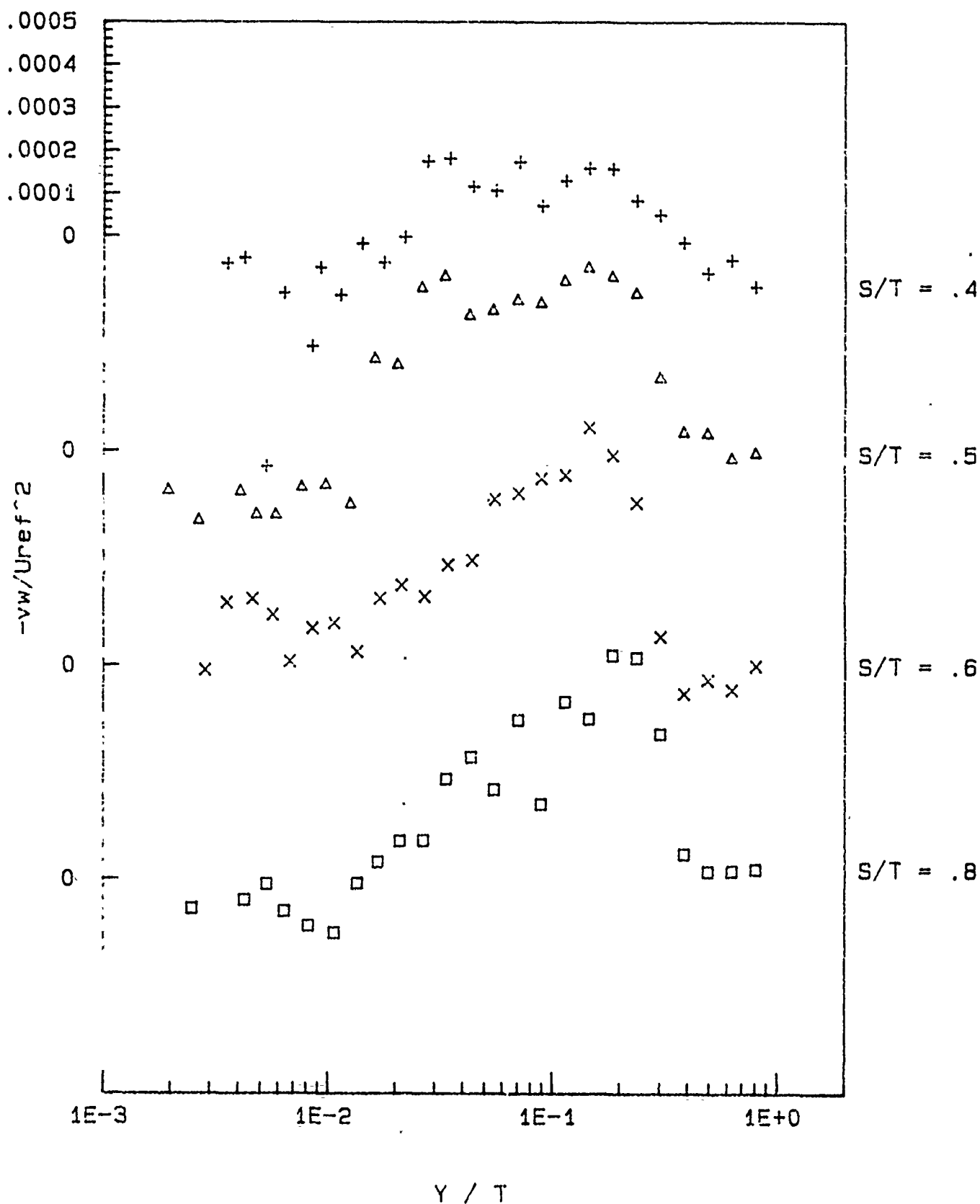


Figure F.6-9(b) Profiles of VW Reynolds shear stress, plane 10.

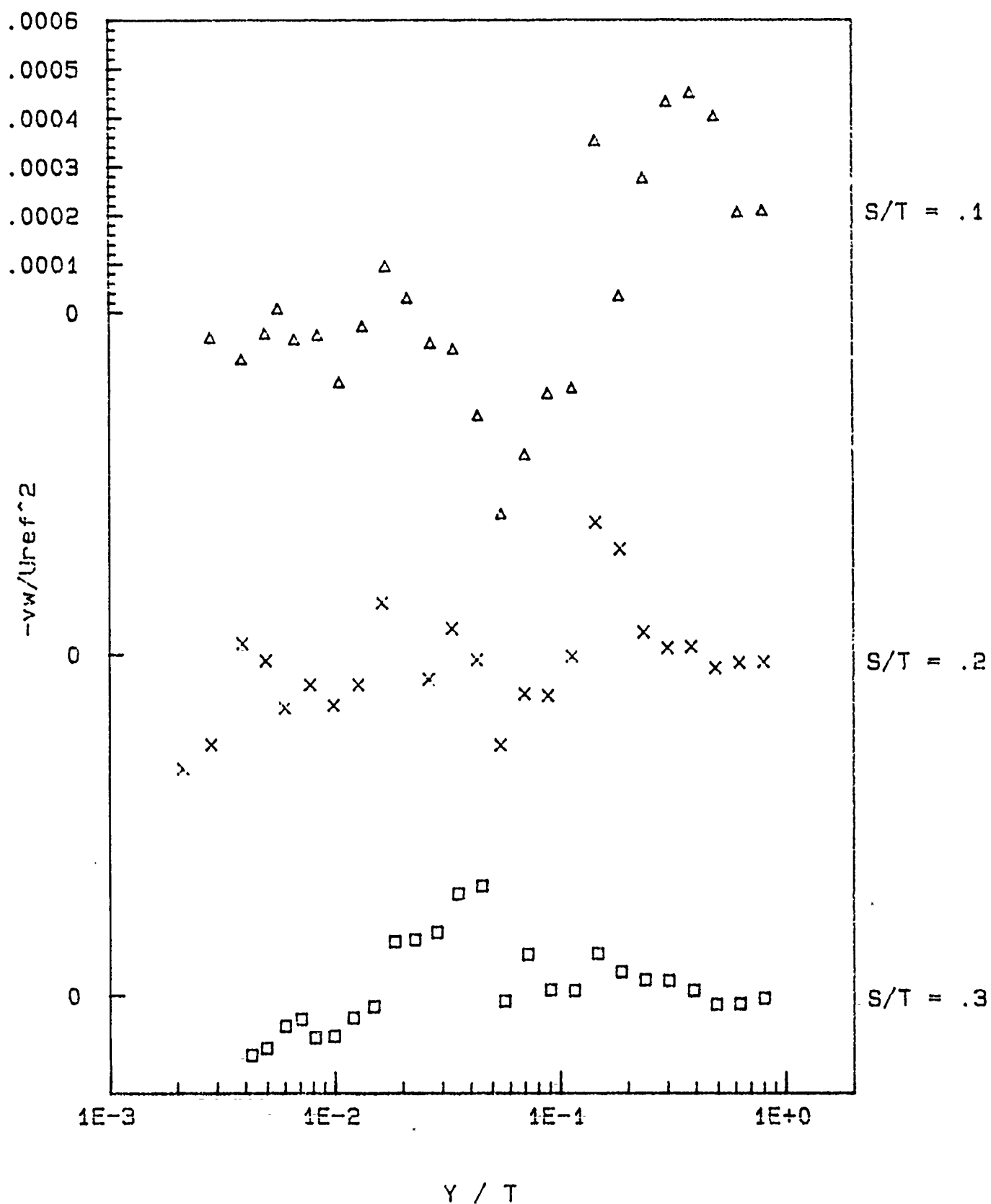


Figure F.6-9(c) Profiles of VW Reynolds shear stress, plane 10.

File E574770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.3
 density (kilograms per meter cubed) = 1.11159
 viscosity (meters squared per second) = 1.64902E-05

Atmospheric pressure (Pascals) = 94890
 Velocity of undisturbed free stream (Uref, in m/s) = 27.64205

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091209E-03

Estimated momentum thickness Reynolds number = 6857.977

Location of traverse: X/T = 4.4618 Z/T = -1.6 (Plane 10, S/T = 1.60)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	2.0042E-01	9.9223E-03			-1.9571E-03	9.0861E-05	-1.0330E-01	1.4346E+00	
2.1246E-02	2.3938E-01	1.0483E-02			-1.9538E-03	1.8382E-04	-5.9168E-02	1.3321E+00	
3.8952E-03	3.6382E-01	8.7575E-03			-6.5227E-04	4.5267E-04	-1.5072E-01	1.0672E+00	
6.0198E-03	4.2277E-01	8.1417E-03	-7.1584E-02	4.6643E-01	3.3252E-05	8.2066E-04	-7.3528E-02	7.4857E-01	-8.6948E-04
8.8527E-03					1.2601E-04	1.2063E-03	-1.9019E-02	3.2486E-01	
1.2394E-02	4.9813E-01	7.2915E-03	6.3128E-03	-1.6548E-01	1.2667E-03	1.4748E-03	8.2397E-02	1.5236E-01	-1.0401E-03
1.6643E-02	5.1778E-01	7.0420E-03	7.8079E-02	-2.0406E-01	1.3164E-03	1.6374E-03	6.2582E-02	1.9158E-02	-1.1048E-03
2.2309E-02	5.4222E-01	7.2424E-03	5.4637E-02	-3.1127E-01	1.9285E-03	1.7957E-03	5.4327E-02	4.5211E-02	-1.1731E-03
2.9391E-02	5.6097E-01	6.9928E-03	9.3324E-02	-3.3902E-01	2.1929E-03	1.8181E-03	6.6871E-02	-7.1325E-02	-1.3346E-03
3.8952E-02	5.9191E-01	6.9947E-03	1.5828E-02	-3.1369E-01	4.2024E-03	1.9165E-03	7.0833E-02	-5.2796E-02	-1.1040E-03
5.0637E-02	6.2130E-01	6.9356E-03	-1.3188E-02	-4.1220E-01	4.7003E-03	1.8367E-03	8.9091E-02	-1.1119E-01	-1.4842E-03
6.5864E-02	6.5021E-01	6.5027E-03	-5.4639E-02	-4.0949E-01	6.2193E-03	1.7867E-03	1.7068E-01	-1.4481E-01	-1.6297E-03
8.4986E-02					6.9139E-03	1.6893E-03	1.8238E-01	3.6078E-03	
1.0977E-01	7.1784E-01	5.4221E-03	-1.3041E-01	-3.3282E-01	8.0990E-03	1.6405E-03	1.4987E-01	-6.4365E-02	-1.1523E-03
1.4093E-01	7.5083E-01	4.6187E-03	-1.5361E-01	-2.5019E-01	9.2890E-03	1.5147E-03	1.5320E-01	-1.8196E-02	-9.0925E-04
1.8059E-01	7.8744E-01	3.9668E-03	-8.3946E-02	-3.0082E-01	1.0038E-02	1.4160E-03	8.0272E-02	6.2006E-03	-8.8441E-04
2.3159E-01	8.2084E-01	3.6893E-03	-9.0220E-02	-3.2744E-01	1.1478E-02	1.3335E-03	1.0542E-01	-1.3247E-01	-8.6519E-04
2.9674E-01	8.6569E-01	3.3151E-03	-2.3232E-01	-3.3864E-01	1.5538E-02	1.2128E-03	1.7937E-01	-1.8040E-01	-7.7015E-04
3.7996E-01	9.1522E-01	2.4567E-03	-4.6389E-01	-6.6297E-02	1.7932E-02	9.9476E-04	3.6482E-01	9.6365E-02	-5.5554E-04
4.8690E-01	9.6961E-01	1.2798E-03	-8.6768E-01	4.6611E-01	2.1530E-02	6.0653E-04	6.0767E-01	5.6503E-01	-3.6691E-04
6.2217E-01	1.0048E+00	1.7389E-04	-8.7229E-01	2.3427E+00	1.6889E-02	1.6594E-04	1.1054E+00	2.3163E+00	-4.5890E-05
7.9603E-01	1.0096E+00	2.0890E-05	6.0578E-02	-9.4385E-02	1.2942E-02	2.4473E-05	-7.4067E-02	-1.3204E-01	8.0107E-06
1.0166E+00	1.0100E+00	1.4721E-05	-6.4255E-02	-1.9802E-01	1.0951E-02	1.5128E-05	-1.0977E-01	-1.0867E-01	7.9682E-06
1.2358E+00	1.0097E+00	1.2704E-05	-9.8420E-02	-1.6646E-01	7.6884E-03	1.4738E-05	1.0542E-02	-2.2789E-01	7.5592E-06
1.5899E+00	1.0089E+00	1.2125E-05	-9.5470E-02	-2.1254E-01	7.0529E-03	1.3759E-05	-3.9344E-02	-1.8245E-01	6.7869E-06

Table F.6-1 Velocity measurements made at S/T = 1.60 with the UV system of the laser anemometer, plane 10

File E575770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.2
 density (kilograms per meter cubed) = 1.104615
 viscosity (meters squared per second) = 1.663302E-05
 Atmospheric pressure (Pascals) = 94580

Velocity of undisturbed free stream (Uref, in m/s) = 27.67929

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.090107E-03

Estimated momentum thickness Reynolds number = 6806.415

Location of traverse: $X/T = 4.4616$ $Z/T = -1.4$ (Plane 10, $S/T = 1.40$)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
8.8527E-04	1.7544E-01	7.8012E-03			-1.7954E-04	2.6377E-05	-3.7366E-01	2.7087E+00	
1.9476E-03	2.1408E-01	8.8283E-03			-4.3098E-04	6.9478E-05	-9.8444E-02	1.5784E+00	
3.0099E-03	2.8333E-01	7.6635E-03			-1.7269E-04	1.7541E-04	1.9339E-02	1.1666E+00	
4.0722E-03	3.5177E-01	6.6145E-03			-8.0650E-04	3.7681E-04	-2.9325E-01	1.1166E+00	
5.8428E-03	4.0014E-01	7.3126E-03			-1.2292E-04	6.2695E-04	-3.0722E-02	5.9354E-01	
7.9674E-03	4.3658E-01	7.4690E-03	-4.9932E-02	1.7410E-01	-3.4296E-04	1.0162E-03	-4.9803E-02	5.2878E-01	-6.6925E-04
1.0800E-02	4.6307E-01	6.8966E-03	6.5459E-02	-1.0406E-01	3.8563E-04	1.3812E-03	8.2931E-03	2.3214E-01	-9.8265E-04
1.4341E-02	4.7941E-01	6.8600E-03	8.0615E-02	-1.9356E-01	9.2405E-04	1.5573E-03	2.2472E-02	1.1453E-01	-1.0174E-03
1.8591E-02	5.0162E-01	6.5643E-03	9.2219E-02	-2.6967E-01	1.9133E-03	1.6821E-03	1.0440E-01	-1.9891E-02	-1.1743E-03
2.4256E-02	5.2103E-01	6.8595E-03	1.2134E-01	-3.3554E-01	1.0307E-03	1.7727E-03	5.3902E-02	-2.7843E-02	-1.1911E-03
3.1339E-02	5.4220E-01	6.7474E-03	1.1390E-01	-3.1195E-01	2.8878E-03	1.8629E-03	1.1521E-01	-5.3362E-02	-1.1936E-03
4.0899E-02	5.6795E-01	6.8668E-03	6.2607E-02	-3.4566E-01	4.0196E-03	1.9247E-03	1.5106E-02	-6.3818E-02	-1.0755E-03
5.2585E-02	5.9210E-01	6.5506E-03	4.7614E-02	-3.8082E-01	4.5846E-03	1.8791E-03	8.8321E-02	-1.4955E-01	-1.4078E-03
6.7812E-02	6.2429E-01	6.4769E-03	3.2533E-02	-3.6855E-01	7.3968E-03	1.9158E-03	1.1110E-01	-2.1761E-02	-1.2750E-03
8.6579E-02	6.5565E-01	6.2327E-03	-1.8325E-02	-3.4571E-01	8.0427E-03	1.8538E-03	1.9089E-01	6.2933E-02	-9.9814E-04
1.1127E-01	6.8910E-01	5.6134E-03	-6.1799E-02	-3.0069E-01	1.0071E-02	1.6813E-03	1.8492E-01	-3.3080E-02	-1.0267E-03
1.4253E-01	7.2755E-01	4.7608E-03	-1.0610E-01	-2.4287E-01	1.3272E-02	1.5656E-03	1.0345E-01	-2.4279E-02	-1.0172E-03
1.8254E-01	7.6883E-01	4.1785E-03	-3.2597E-02	-3.4144E-01	1.3746E-02	1.4850E-03	7.5954E-02	-7.4811E-02	-7.0958E-04
2.3460E-01	8.0336E-01	3.8008E-03	-5.3712E-02	-3.7458E-01	1.6147E-02	1.4355E-03	3.3579E-02	-9.5397E-02	-8.3956E-04
2.9904E-01	8.4890E-01	3.5485E-03	-2.1393E-01	-3.4169E-01	2.0047E-02	1.3002E-03	1.3737E-01	-1.3437E-01	-8.7457E-04
3.8191E-01	9.0280E-01	2.7161E-03	-4.4644E-01	-1.0459E-01	1.8999E-02	1.0490E-03	4.6213E-01	3.2515E-01	-6.3075E-04
4.8814E-01	9.5894E-01	1.3987E-03	-7.5956E-01	2.0058E-01	2.1239E-02	6.6191E-04	5.8957E-01	4.5632E-01	-3.5789E-04
6.2411E-01	1.0009E+00	1.7133E-04	-1.1666E+00	3.7286E+00	1.9115E-02	1.9992E-04	1.2283E+00	2.7046E+00	-6.2359E-05
7.9727E-01	1.0031E+00	2.2763E-05	7.1860E-02	-2.0334E-01	1.2166E-02	2.5785E-05	1.6078E-02	-1.9432E-01	9.5860E-06
1.0186E+00	1.0044E+00	3.1163E-05	1.3321E-01	7.7232E-02	1.0235E-02	3.0621E-05	1.9648E-01	9.7866E-02	2.5138E-05
1.2378E+00	1.0051E+00	1.3855E-05	8.6920E-03	-2.7288E-01	6.7191E-03	1.3013E-05	6.6174E-02	-1.8144E-01	9.4219E-06
1.5919E+00	1.0046E+00	2.8517E-05	1.5977E-01	1.5991E-01	3.8389E-03	2.7294E-05	1.7010E-01	6.9819E-02	2.3961E-05

Table F.6-2 Velocity measurements made at $S/T = 1.40$ with the UV system of the laser anemometer, plane 10

File E576770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.204655

viscosity (meters squared per second) = 1.662383E-05

Atmospheric pressure (Pascals) = 94520

Velocity of undisturbed free stream (Uref, in m/s) = 27.66453

Estimated momentum thickness at X/T = -2.146, Z/T=0 (n) = 4.090543E-03

Estimated momentum thickness Reynolds number = 6707.272

Location of traverse: X/T = 4.4618 Z/T = -1.2 (Plane 10, S/T = 1.20)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	1.7107E-01	6.0765E-03			-1.7813E-03	7.7313E-05	-5.4385E-01	2.0305E+00	
2.3017E-03	2.2158E-01	7.1115E-03			-1.1394E-03	1.1878E-04	-1.0798E-01	1.2481E+00	
3.1870E-03	2.7757E-01	5.9101E-03			-1.2164E-03	2.2745E-04	-2.0369E-01	1.3912E+00	
5.1346E-03	3.5797E-01	7.6988E-03	2.0105E-03	1.2140E-01	-8.0488E-04	5.5886E-04	-1.4564E-01	8.9947E-01	-8.1199E-04
7.0822E-03	3.9563E-01	7.0978E-03	1.6708E-03	2.3986E-01	-8.2464E-04	8.8206E-04	-1.5382E-01	5.1092E-01	-7.8586E-04
1.0269E-02	4.2718E-01	6.9000E-03	7.5939E-02	-1.8273E-01	-1.4510E-04	1.2323E-03	1.6531E-02	1.7840E-01	-8.7772E-04
1.3456E-02	4.4794E-01	6.7770E-03	8.5632E-02	-1.7905E-01	3.7653E-04	1.4796E-03	-6.7177E-03	1.2445E-01	-9.5197E-04
1.7705E-02	4.6337E-01	6.5834E-03	1.5761E-01	-2.5019E-01	6.9460E-04	1.6595E-03	-1.1590E-01	1.0428E-01	-8.9422E-04
3.0453E-02	4.9363E-01	6.6253E-03	1.6914E-01	-2.7392E-01	1.3212E-03	1.8148E-03	3.6321E-02	4.3268E-02	-1.2482E-03
4.0014E-02	5.3182E-01	6.6878E-03	6.9781E-02	-3.0742E-01	4.1775E-03	2.0303E-03	5.6829E-02	-6.7042E-02	-1.4782E-03
5.1700E-02	5.5483E-01	6.9247E-03	6.2136E-02	-2.7996E-01	3.9844E-03	2.0863E-03	5.9762E-02	-1.4243E-01	-1.2448E-03
6.6926E-02	5.8661E-01	6.8096E-03	4.5160E-02	-3.4617E-01	6.4959E-03	2.1128E-03	9.3853E-02	-1.6796E-01	-1.2038E-03
8.5694E-02	6.1921E-01	6.6188E-03	5.0676E-03	-3.5074E-01	8.2133E-03	2.1356E-03	1.2510E-01	-1.3295E-01	-1.2636E-03
1.1084E-01	6.5304E-01	6.3258E-03	-6.4839E-02	-2.9432E-01	1.0927E-02	2.1087E-03	1.2293E-01	-9.7343E-02	-1.1680E-03
1.4271E-01	6.9364E-01	5.9187E-03	-1.0324E-01	-2.5315E-01	1.2771E-02	1.9759E-03	1.2006E-01	3.1622E-02	-1.0428E-03
1.8166E-01	7.2945E-01	5.2994E-03	-1.0031E-01	-2.0040E-01	1.5002E-02	1.8566E-03	1.0364E-01	2.3530E-02	-9.9890E-04
2.3300E-01	7.7087E-01	5.0498E-03	-2.0273E-01	-1.0970E-01	1.8428E-02	1.7433E-03	9.6727E-02	-5.2675E-02	-1.0933E-03
2.9780E-01	8.2156E-01	4.3945E-03	-2.5789E-01	-2.3509E-01	2.3567E-02	1.6232E-03	1.1565E-01	-8.1349E-02	-9.7421E-04
3.8102E-01	8.8285E-01	3.3503E-03	-4.8049E-01	-2.1340E-02	2.3866E-02	1.2422E-03	3.8635E-01	1.0403E-01	-7.7630E-04
4.8796E-01	9.4957E-01	1.5699E-03	-7.5378E-01	2.4777E-01	2.5579E-02	8.1577E-04	5.8790E-01	5.1941E-01	-4.5884E-04
6.2323E-01	9.9551E-01	1.7956E-04	-9.2228E-01	2.6035E+00	2.1886E-02	2.2941E-04	1.1108E+00	1.159E+00	-8.4002E-05
7.9639E-01	9.9861E-01	2.1558E-05	1.7716E-01	-1.9886E-02	1.2665E-02	2.9955E-05	1.3633E-01	4.9587E-02	9.3184E-06
1.0177E+00	9.9961E-01	1.3201E-05	1.0762E-01	-1.2337E-01	1.0578E-02	1.6325E-05	1.5567E-02	-2.3589E-01	8.7352E-06
1.2369E+00	9.9931E-01	1.0962E-05	1.7031E-02	-1.4568E-01	6.3645E-03	1.3801E-05	1.3534E-01	-1.5920E-01	8.1130E-06
1.5910E+00	9.9991E-01	1.0293E-05	6.0234E-02	-2.0451E-01	4.6196E-03	1.2485E-05	1.3107E-01	-1.2815E-01	7.4638E-06

Table F.6-3 Velocity measurements made at S/T = 1.20 with the UV system of the laser anemometer, plane 10

File E577770.AES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.6

density (kilograms per meter cubed) = 1.105086

viscosity (meters squared per second) = 1.660214E-05

Atmospheric pressure (Pascals) = 94430

Velocity of undisturbed free stream (Uref, in m/s) = 27.66679

Estimated momentum thickness at X/T = -2.146, Z/T=0 (e) = 4.090477E-03

Estimated momentum thickness Reynolds number = 6817.434

Location of traverse; X/T = 4.4618 Z/T = -1 (Plane 10, S/T = 1.00)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	1.5531E-01	4.5528E-03			-1.8381E-04	1.0652E-05	-1.1870E-01	1.3952E+00	
2.1246E-03	1.9326E-01	6.0717E-03			-8.4980E-04	3.2214E-05	-3.2132E-01	2.7141E+00	
2.8329E-03	2.4547E-01	6.3850E-03			-1.5530E-03	9.2892E-05	-3.1571E-01	1.5988E+00	
3.5411E-03	2.9285E-01	6.4534E-03			-1.9950E-03	2.0133E-04	-3.1846E-01	1.6472E+00	
4.9575E-03	3.3561E-01	8.1713E-03	1.6557E-01	-2.5318E-02	-2.1810E-03	3.9633E-04	-2.8691E-01	9.6460E-01	-7.0656E-05
6.3739E-03	3.6749E-01	7.8043E-03	1.0340E-01	-1.7915E-01	-1.9985E-03	6.6905E-04	-1.6836E-01	5.7708E-01	-4.9393E-04
7.4363E-03	3.8105E-01	7.2180E-03	1.5823E-01	-1.3433E-01	-1.6680E-03	8.6189E-04	-1.9031E-01	5.7499E-01	-6.8733E-04
9.5609E-03	4.0266E-01	7.1866E-03	1.7760E-01	-1.6364E-01	-1.1985E-03	1.1001E-03	-8.1074E-02	3.1469E-01	-9.2021E-04
1.2394E-02	4.1677E-01	6.9477E-03	2.1346E-01	-2.1839E-01	-1.1448E-03	1.3724E-03	-5.0970E-03	2.8530E-01	-7.8081E-04
1.5935E-02	4.3806E-01	6.9271E-03	2.5259E-01	-1.7327E-01	-9.2251E-04	1.4960E-03	-2.2863E-02	-4.5553E-02	-9.4601E-04
2.0184E-02	4.5655E-01	7.0593E-03	2.4616E-01	-2.7353E-01	2.8894E-03	1.6726E-03	6.6635E-02	6.9534E-02	-9.6689E-04
2.5250E-02	4.6884E-01	7.1081E-03	2.7982E-01	-3.2272E-01	4.7191E-03	1.8679E-03	3.7711E-03	-2.8991E-02	-1.0658E-03
3.2932E-02	4.8857E-01	7.3510E-03	2.9178E-01	-3.2036E-01	6.4563E-03	1.9637E-03	2.6200E-02	1.5728E-02	-1.0687E-03
4.2493E-02	5.0787E-01	7.7619E-03	2.4194E-01	-3.9805E-01	8.7166E-03	2.0872E-03	4.9241E-02	1.9463E-02	-1.0752E-03
5.5595E-02	5.3497E-01	7.6480E-03	1.7441E-01	-4.3417E-01	1.3739E-02	2.1586E-03	2.2069E-02	-5.2722E-02	-1.2750E-03
6.9405E-02	5.5598E-01	7.6318E-03	1.2080E-01	-4.1245E-01	1.7126E-02	2.1650E-03	2.8443E-02	-6.9054E-02	-1.2982E-03
8.8173E-02	5.8100E-01	7.3732E-03	7.5313E-02	-4.3158E-01	2.2700E-02	2.3315E-03	4.9058E-02	-1.4619E-01	-9.3449E-04
1.1296E-01	6.0813E-01	6.7475E-03	2.1293E-02	-4.5128E-01	2.8135E-02	2.3374E-03	4.8311E-02	-1.3550E-01	-1.0625E-03
1.4412E-01	6.3565E-01	6.2095E-03	7.3575E-02	-2.7189E-01	3.1651E-02	2.4988E-03	6.7754E-02	-1.3805E-01	-9.1713E-04
1.8414E-01	6.6574E-01	6.1853E-03	1.0688E-01	-2.9834E-01	3.7624E-02	2.6347E-03	3.6457E-02	-2.0887E-01	
2.3513E-01	7.0693E-01	6.6798E-03	8.9200E-02	-4.1504E-01	3.7089E-02	2.7484E-03	1.0340E-01	-1.9197E-01	-1.5328E-03
3.0028E-01	7.7144E-01	7.3044E-03	-2.4561E-01	-4.3732E-01	3.3342E-02	2.6380E-03	2.8050E-01	-1.0363E-01	-1.7305E-03
3.8350E-01	8.5596E-01	5.2295E-03	-6.5756E-01	2.6905E-01	3.1295E-02	2.0732E-03	5.2048E-01	3.7447E-01	-1.2436E-03
4.8973E-01	9.4329E-01	1.9172E-03	-8.8594E-01	6.1296E-01	2.9532E-02	1.0543E-03	7.2704E-01	8.5723E-01	-3.6595E-04
6.2571E-01	9.9254E-01	1.5445E-04	-4.9777E-01	2.1491E+00	2.1441E-02	2.4782E-04	1.1364E+00	2.0418E+00	-6.4239E-05
7.9887E-01					1.2267E-02	2.9766E-05	1.3764E-01	-4.4745E-02	
1.0234E+00	9.9546E-01	1.6028E-05	-1.2851E-02	-1.4854E-01	8.0889E-03	1.8496E-05	-3.7192E-02	-3.2010E-01	9.6596E-06
1.2394E+00	9.9690E-01	1.4187E-05	-4.4030E-02	-2.2811E-01	6.6523E-03	1.4983E-05	-8.8839E-02	-1.7943E-01	1.0300E-05
1.5935E+00	9.9511E-01	1.2767E-05	-4.2402E-02	-3.4847E-01	1.5249E-03	1.3074E-05	8.4594E-03	-2.5963E-01	8.8501E-06

Table F.6-4 Velocity measurements made at S/T = 1.00 with the UV system of the laser anemometer, plane 10

File E579770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.5

density (kilograms per meter cubed) = 1.105341

viscosity (meters squared per second) = 1.659204E-05

Atmospheric pressure (Pascals) = 94420

Velocity of undisturbed free stream (Uref, in m/s) = 27.64707

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.09106E-03

Estimated momentum thickness Reynolds number = 6816.874

Location of traverse: X/T = 4.4616 Z/T = -.8 (Plane 10, S/T = 0.80)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.0623E-03	2.1538E-01	1.1102E-02			-8.9161E-04	1.2871E-05	-1.6074E-01	6.9244E-01	
2.1246E-03	2.7584E-01	1.2751E-02			-2.0930E-03	5.3395E-05	-4.3566E-01	2.4535E+00	
3.1870E-03	3.6594E-01	9.6440E-03			-4.1539E-03	2.5256E-04	-3.6973E-01	1.4089E+00	
4.6034E-03	4.3696E-01	8.6377E-03			-4.8159E-03	5.2462E-04	-1.9604E-01	7.6054E-01	
6.7280E-03	4.7672E-01	9.3024E-03	-2.4114E-01	-7.0306E-02	-5.5694E-03	8.7319E-04	-7.7256E-02	5.5402E-01	-9.6427E-04
8.4986E-03	5.0607E-01	8.3974E-03	-2.2570E-01	3.7169E-02	-5.7466E-03	1.2127E-03	-3.7664E-02	3.8601E-01	-1.0393E-03
1.4673E-02	5.6148E-01	7.6038E-03	-1.9175E-01	-2.1833E-01	-3.8797E-03	1.7715E-03	1.4660E-01	1.5347E-02	-1.0252E-03
1.9476E-02	5.8537E-01	7.3168E-03	-2.4312E-01	-2.1120E-01	-2.7526E-03	1.8361E-03	2.0000E-01	-1.7171E-03	-1.0976E-03
2.4788E-02	6.1338E-01	6.9209E-03	-2.6862E-01	-2.2916E-01	-2.8371E-03	1.8732E-03	2.1614E-01	6.5652E-02	-1.0240E-03
3.2224E-02	6.3300E-01	6.9639E-03	-3.5823E-01	-2.0677E-01	-3.1946E-03	1.8229E-03	1.7662E-01	-7.2002E-04	-1.1453E-03
4.1431E-02	6.6354E-01	6.0658E-03	-3.9892E-01	-3.0217E-02	-3.1813E-04	1.8198E-03	2.6357E-01	8.8772E-02	-1.2421E-03
5.3116E-02	6.8819E-01	5.7329E-03	-4.9644E-01	2.2125E-01	1.0528E-03	1.8139E-03	2.0618E-01	1.3564E-01	-9.0631E-04
6.8343E-02	7.0348E-01	5.1376E-03	-5.1536E-01	3.5197E-01	2.5178E-03	1.8984E-03	9.2472E-02	9.8291E-02	-7.7132E-04
8.7110E-02	7.1724E-01	4.3796E-03	-3.0677E-01	1.5298E-01	4.5970E-03	2.1052E-03	4.7696E-02	3.5064E-02	-4.1460E-04
1.1225E-01	7.1592E-01	4.0147E-03	-1.7887E-01	-8.0318E-03	4.3479E-03	2.4861E-03	-1.1992E-01	-9.0456E-02	-2.0765E-04
1.4306E-01	7.0644E-01	3.9666E-03	2.9226E-02	-1.8074E-01	6.9544E-03	2.8577E-03	-1.0395E-01	-1.4980E-01	-3.0750E-05
1.8414E-01	7.0503E-01	4.3775E-03	1.6703E-01	-1.8596E-01	8.7075E-03	3.0744E-03	-5.5754E-02	-2.1538E-01	-3.9607E-04
2.3407E-01	7.1730E-01	5.4483E-03	1.7080E-01	-3.6006E-01	1.1385E-02	3.1375E-03	8.4334E-02	-2.1737E-01	-1.1970E-02
2.9922E-01	7.7000E-01	6.6331E-03	-1.0655E-01	-5.7921E-01	1.4460E-02	2.8305E-03	2.4079E-01	-2.1134E-01	-1.5096E-03
3.8244E-01	8.6151E-01	5.0058E-03	-6.1739E-01	4.2537E-02	1.8549E-02	2.1325E-03	5.5633E-01	4.6186E-01	-1.2998E-03
4.8867E-01	9.4706E-01	1.5560E-03	-9.6282E-01	8.9553E-01	2.0791E-02	9.3667E-04	7.4515E-01	8.4840E-01	-3.9268E-04
6.2465E-01	9.8500E-01	1.0721E-04	1.1695E-02	9.9261E-01	1.2949E-02	2.0080E-04	1.1079E+00	2.2730E+00	5.9521E-06
7.9780E-01	9.8487E-01	2.1183E-05	1.0868E-01	-2.8115E-01	8.2998E-03	2.7948E-05	1.3897E-01	-1.1314E-01	8.3548E-06
1.0191E+00	9.8450E-01	1.5147E-05	-4.6942E-02	-2.7039E-01	6.5532E-03	1.8433E-05	-3.0217E-02	-3.1873E-01	9.1879E-06
1.2383E+00	9.8566E-01	1.4294E-05	-4.4623E-02	-2.5071E-01	4.9484E-03	1.6967E-05	-1.0520E-01	-2.1036E-01	9.6796E-06
1.5924E+00	9.8541E-01	1.4761E-05	-7.0245E-02	-2.3196E-01	1.2862E-03	1.4766E-05	-1.5084E-01	-1.3032E-01	9.0607E-06

Table F.6-5 Velocity measurements made at S/T = 0.80 with the UV system of the laser anemometer, plane 10

File E579770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.2
 density (kilograms per meter cubed) = 1.109035
 viscosity (meters squared per second) = 1.652392E-05

Atmospheric pressure (Pascals) = 94640
 Velocity of undisturbed free stream (Uref, in m/s) = 27.62788
 Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.091628E-03
 Estimated momentum thickness Reynolds number = 6841.176
 Location of traverse; X/T = 4.4618 Z/T = -.6 (Plane 10, S/T = 0.60)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
7.0822E-04	2.3698E-01	1.3504E-02			-3.1406E-03	9.1152E-05	-4.4752E-01	1.5956E+00	
1.7705E-03	2.6284E-01	1.3545E-02			-4.0737E-03	1.7680E-04	-2.2500E-01	1.5271E+00	
3.8952E-03	4.2016E-01	1.1465E-02			-5.5323E-03	5.3489E-04	-2.7146E-01	9.3139E-01	
5.6657E-03	4.9540E-01	8.0425E-03			-5.9118E-03	9.4896E-04	-1.4430E-01	4.5299E-01	
8.4986E-03	5.3981E-01	7.3786E-03	-1.9526E-01	3.5135E-01	-5.7407E-03	1.5378E-03	2.0045E-02	2.9051E-01	-1.4551E-03
1.2040E-02	5.7297E-01	7.1466E-03	-1.2790E-01	-9.5547E-02	-4.2549E-03	1.8167E-03	1.2097E-01	2.9876E-02	-1.2178E-03
1.6997E-02	6.0671E-01	6.6336E-03	-1.1330E-01	-3.0438E-01	-4.0310E-03	1.9532E-03	1.7491E-01	-2.7258E-03	-1.3501E-03
2.1955E-02	6.3170E-01	6.4436E-03	-1.3945E-01	-2.4494E-01	-4.2654E-03	1.9185E-03	1.7222E-01	5.2185E-02	-1.1225E-03
2.9037E-02	6.6735E-01	5.8751E-03	-2.0691E-01	-2.6000E-01	-1.5959E-03	1.8300E-03	2.4843E-01	2.9055E-02	-1.2179E-03
3.8598E-02	7.0207E-01	5.5954E-03	-3.0567E-01	-1.3640E-01	-1.2823E-03	1.7665E-03	2.9284E-01	1.1326E-01	-7.4627E-04
5.0992E-02	7.3403E-01	4.5708E-03	-3.1005E-01	6.2337E-02	-1.7543E-03	1.6328E-03	2.3517E-01	2.4617E-01	-6.2818E-04
6.6926E-02	7.5899E-01	3.5638E-03	-2.3176E-01	2.5982E-02	-5.8800E-04	1.5651E-03	1.4034E-01	2.0056E-01	-2.7282E-04
8.4278E-02	7.6911E-01	3.1017E-03	-7.8464E-02	-1.2106E-01	-3.2786E-03	1.5662E-03	-4.2147E-02	8.1391E-02	5.9259E-05
1.0907E-01	7.7432E-01	2.9959E-03	-5.6420E-02	-1.5802E-01	-4.9517E-03	1.8157E-03	-1.8003E-01	8.1504E-02	6.9668E-05
1.4023E-01	7.7362E-01	3.5081E-03	-8.1528E-02	-1.5522E-01	-4.9588E-03	1.9149E-03	-1.0867E-01	-1.8504E-01	-4.5035E-05
1.8024E-01	7.8202E-01	4.1193E-03	-1.4735E-01	-3.4310E-01	-7.4959E-03	1.9932E-03	-2.9908E-02	-4.6702E-02	-2.4461E-04
2.3123E-01	8.0166E-01	4.6061E-03	-2.9496E-01	-2.6812E-01	-5.6420E-03	1.7961E-03	1.1636E-01	2.8665E-02	-6.9839E-04
2.9639E-01	8.4049E-01	4.1160E-03	-4.5988E-01	-1.6217E-01	-6.7421E-04	1.4697E-03	2.5751E-01	1.8817E-01	-7.9086E-04
3.7996E-01	8.9569E-01	2.5145E-03	-7.1660E-01	2.7423E-01	6.3373E-03	1.0157E-03	5.0673E-01	6.9506E-01	-5.8178E-04
4.8584E-01	9.4114E-01	8.3058E-04	-1.0772E+00	1.0514E+00	1.3077E-02	4.9858E-04	7.0514E-01	7.5771E-01	-1.9948E-04
6.2181E-01	9.6106E-01	5.1146E-05	2.9182E-01	3.5875E-01	6.4216E-03	8.5459E-05	9.9272E-01	2.2484E+00	1.0466E-05
7.9497E-01	9.6235E-01	1.9093E-05	2.8987E-02	-8.2372E-02	6.3744E-03	2.2946E-05	1.6127E-01	-1.2204E-01	6.5198E-06
1.0163E+00	9.6209E-01	1.3967E-05	-3.6254E-02	-2.3407E-01	6.6340E-03	1.6015E-05	1.4892E-01	-1.3600E-01	7.5421E-06
1.2355E+00	9.6318E-01	1.0249E-05	-1.5467E-01	-1.3343E-01	5.3275E-03	1.3262E-05	1.8325E-01	-1.2515E-01	5.8135E-06
1.5896E+00	9.6159E-01	9.7395E-06	-1.5572E-01	-1.0599E-01	4.2807E-03	1.2880E-05	1.6820E-01	-2.0738E-01	5.5742E-06

Table F.6-6 Velocity measurements made at S/T = 0.60 with the UV system of the laser anemometer, plane 10

File E591770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.7

density (kilograms per meter cubed) = 1.103019

viscosity (meters squared per second) = 1.663556E-05

Atmospheric pressure (Pascals) = 94285

Velocity of undisturbed free stream (Uref, in m/s) = 27.60389

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092339E-03

Estimated momentum thickness Reynolds number = 6790.543

Location of traverse: X/T = 4.4616 Z/T = -0.5 (Plane 10, S/T = 0.50)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	2.5119E-01	1.3064E-02			-3.3519E-03	1.0405E-04	-3.9010E-01	1.0152E+00	
2.4788E-03	2.9158E-01	1.1260E-02			-3.7267E-03	1.9160E-04	-3.2112E-01	1.2192E+00	
3.5411E-03	4.0915E-01	7.4001E-03			-4.1248E-03	4.9259E-04	-1.5300E-01	9.3987E-01	
5.3116E-03	4.8364E-01	7.9491E-03			-3.8292E-03	9.1358E-04	-1.5484E-01	5.7488E-01	
7.7904E-03	5.1787E-01	9.4759E-03	-2.1026E-01	-1.7449E-01	-3.0193E-03	1.2901E-03	-8.2865E-02	3.1065E-01	-1.0118E-03
1.0269E-02	5.4713E-01	8.0600E-03	-1.8694E-01	-6.1585E-02	-2.5063E-03	1.6260E-03	4.1384E-02	9.4547E-02	-1.4857E-03
1.4164E-02	5.6300E-01	7.1791E-03	-1.6358E-01	-2.8364E-01	-1.5323E-03	1.8936E-03	1.8193E-01	2.1150E-02	-1.5380E-03
1.8059E-02					-1.0637E-03	1.9696E-03	1.9318E-01	2.4753E-02	
2.3725E-02	6.4081E-01	6.9215E-03	-1.5370E-01	-2.7661E-01	-4.1420E-04	1.9914E-03	1.6882E-01	-6.8090E-02	-1.3836E-03
3.0807E-02	6.7086E-01	6.3460E-03	-2.3037E-01	-2.7029E-01	-1.7334E-03	1.8511E-03	2.2227E-01	2.0512E-02	-1.2691E-03
4.0368E-02	7.0860E-01	5.9101E-03	-3.4887E-01	-1.0644E-01	2.1544E-03	1.7224E-03	3.1317E-01	1.5847E-01	
5.2054E-02	7.4236E-01	4.7053E-03	-4.0408E-01	1.1041E-01	1.4149E-03	1.5083E-03	3.1920E-01	2.8053E-01	-7.7871E-04
6.7280E-02	7.6768E-01	3.8329E-03	-3.4257E-01	2.3624E-01	4.1888E-03	1.3840E-03	2.9199E-01	3.5335E-01	-2.4193E-04
8.6048E-02	7.8128E-01	2.8793E-03	-1.4461E-01	6.8501E-02	1.1821E-03	1.3293E-03	2.2104E-02	1.9127E-01	-1.1567E-04
1.1084E-01	7.8354E-01	2.5474E-03	-6.4437E-03	-2.5592E-01	1.7676E-03	1.4279E-03	-1.1639E-01	-2.8297E-02	-5.2745E-05
1.4200E-01	7.8681E-01	2.6955E-03	-3.0578E-02	-2.8341E-01	1.4080E-03	1.5979E-03	-1.2877E-01	-3.0922E-02	-1.0415E-04
1.8237E-01	7.9603E-01	3.0191E-03	-1.1626E-01	-2.8414E-01	-2.0888E-03	1.5529E-03	-3.8727E-02	-3.4541E-02	-3.5886E-04
2.3300E-01	8.1802E-01	3.2615E-03	-2.7332E-01	-2.8476E-01	-1.8762E-03	1.4122E-03	2.1736E-02	-5.3466E-02	-5.5426E-04
2.9816E-01	8.4816E-01	3.0744E-03	-4.5831E-01	-1.3720E-01	2.3941E-03	1.1376E-03	3.0649E-01	2.7972E-01	-4.4867E-04
3.8137E-01	8.9142E-01	2.0918E-03	-7.3666E-01	3.2135E-01	5.4070E-03	7.6218E-04	4.6240E-01	4.9188E-01	-3.8265E-04
4.8761E-01	9.3425E-01	7.8428E-04	-1.1525E+00	1.4751E+00	1.0864E-02	3.7402E-04	7.3135E-01	1.0727E+00	-2.3296E-04
6.2358E-01	9.5125E-01	6.5478E-05	1.9049E-01	3.4238E-01	6.0583E-03	7.9158E-05	7.3467E-01	1.4825E+00	1.4256E-05
7.9674E-01	9.5129E-01	1.0382E-04	1.2465E-02	-3.5884E-02	5.9279E-03	2.4523E-05	9.5817E-02	-2.5514E-01	
1.0181E+00	9.5108E-01	2.4854E-05	-7.2112E-02	-4.6079E-02	6.4983E-03	1.7095E-05	8.6367E-02	-2.4859E-01	1.3623E-05
1.2373E+00	9.5135E-01	2.4878E-05	-1.6434E-02	-3.9334E-02	6.5345E-03	1.5783E-05	8.6572E-02	-2.1537E-01	
1.5914E+00	9.5142E-01	1.9763E-05	-6.7720E-02	-5.0511E-02	2.4851E-03	1.4085E-05	1.4966E-01	-2.0809E-01	1.0542E-05

Table F.6-7 Velocity measurements made at S/T = 0.50 with the UV system of the laser anemometer, plane 10

File E592770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.8
 density (kilograms per meter cubed) = 1.105748
 viscosity (meters squared per second) = 1.659881E-05

Atmospheric pressure (Pascals) = 94550
 Velocity of undisturbed free stream (Uref, in m/s) = 27.64484
 Estimated momentum thickness at $\lambda/T = -2.146$, $Z/T = 0$ (m) = 4.091126E-03
 Estimated momentum thickness Reynolds number = 6813.652
 Location of traverse: $\lambda/T = 4.4618$ $Z/T = -.4$ (Plane 10, $S/T = 0.40$)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
7.0822E-04	2.4680E-01	1.2200E-02			-4.1430E-03	1.5310E-04	-1.8909E-01	1.5560E+00	
1.7705E-03	2.9098E-01	1.3168E-02			-2.9663E-03	1.7151E-04	-3.0308E-01	1.8206E+00	
3.5411E-03	4.5886E-01	9.0162E-03			-4.4195E-03	5.0283E-04	-3.3866E-01	1.2525E+00	
5.6657E-03	5.2646E-01	8.1907E-03			-4.3618E-03	1.1257E-03	-1.9882E-01	4.5155E-01	
8.4986E-03	5.6463E-01	7.7976E-03	-2.3677E-01	2.2536E-01	-3.7329E-03	1.6792E-03	1.6505E-02	1.9628E-01	-1.4572E-03
1.2040E-02	5.9945E-01	7.3894E-03	-1.6025E-01	-1.3625E-01	-2.5505E-03	2.0527E-03	1.3527E-01	-9.4156E-02	-1.3211E-03
1.6289E-02	6.3077E-01	7.1475E-03	-1.3568E-01	-2.7620E-01	-1.7412E-03	2.0688E-03	2.3626E-01	7.2701E-03	-1.4487E-03
2.1955E-02	6.6069E-01	7.0396E-03	-2.2433E-01	-2.4170E-01	-2.6998E-03	2.0502E-03	2.7325E-01	6.1866E-02	-1.1931E-03
2.9037E-02	6.9230E-01	6.7376E-03	-3.4659E-01	-1.8319E-01	-1.3960E-03	1.8550E-03	3.3776E-01	1.5691E-01	-1.0302E-03
3.8598E-02	7.3274E-01	5.7902E-03	-4.2549E-01	-5.6142E-02	7.2886E-04	1.5922E-03	4.4218E-01	4.1320E-01	-8.8019E-04
5.0283E-02	7.6634E-01	4.3462E-03	-4.6533E-01	3.0174E-01	-8.7866E-05	1.2759E-03	4.0378E-01	3.6706E-01	-6.2221E-04
6.5510E-02	7.8840E-01	3.1911E-03	-2.7609E-01	1.1476E-01	2.7320E-03	1.0964E-03	2.3194E-01	1.9909E-01	-1.7003E-04
8.4278E-02	7.9625E-01	2.5181E-03	-5.0462E-02	-2.0336E-01	2.1010E-03	1.0883E-03	6.2010E-02	1.4785E-01	-4.4091E-06
1.0907E-01	7.9543E-01	2.2771E-03	1.5722E-03	-3.0540E-01	1.5028E-03	1.1887E-03	-1.1666E-01	-1.8063E-02	-7.4103E-07
1.4023E-01	7.9451E-01	2.3492E-03	-7.5821E-02	-3.4378E-01	1.5805E-03	1.2539E-03	-6.0010E-02	-1.1792E-01	-6.3197E-05
1.8024E-01	8.0195E-01	2.5639E-03	-8.9969E-02	-3.4498E-01	-4.3972E-04	1.2146E-03	4.2813E-02	-1.1772E-01	-3.0124E-04
2.3123E-01	8.2101E-01	2.6252E-03	-2.2629E-01	-3.9831E-01	5.2777E-05	1.1027E-03	1.6595E-01	-2.0595E-02	-4.2573E-04
2.9639E-01	8.5020E-01	2.3939E-03	-4.3264E-01	-1.9705E-01	2.2630E-03	8.9727E-04	2.8148E-01	1.6038E-01	-4.4771E-04
3.7960E-01	8.8708E-01	1.6370E-03	-7.4063E-01	2.8017E-01	4.8127E-03	6.5081E-04	3.6500E-01	4.2341E-01	-3.6690E-04
4.8584E-01	9.2496E-01	5.8342E-04	-1.2081E+00	1.6795E+00	6.0438E-03	3.0364E-04	7.6110E-01	1.4374E+00	-1.4748E-04
6.2181E-01	9.3985E-01	5.8338E-05	1.7258E-01	4.0461E-01	4.4236E-03	6.4279E-05	4.6977E-01	8.6104E-01	7.0215E-06
7.9533E-01	9.4042E-01	3.2227E-05	2.4523E-02	-9.5359E-02	5.0048E-03	2.5193E-05	1.5809E-01	-1.5608E-01	1.5574E-05
1.0163E+00	9.4103E-01	2.3610E-05	-1.2588E-01	-1.5858E-01	4.4734E-03	1.6568E-05	1.1537E-01	-2.3281E-01	1.1637E-05
1.2355E+00	9.4074E-01	2.2271E-05	-1.4260E-02	-1.1793E-01	3.0117E-03	1.4499E-05	1.1357E-01	-1.8382E-01	1.1239E-05
1.5896E+00	9.4187E-01	2.5697E-05	-1.0806E-01	3.1034E-02	1.8037E-03	1.2848E-05	6.4157E-02	-1.6934E-01	1.2568E-05

Table F.4-8 Velocity measurements made at $S/T = 0.40$ with the UV system of the laser anemometer, plane 10

File E593770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 25.5

density (kilograms per meter cubed) = 1.099888

viscosity (meters squared per second) = 1.671745E-05

Atmospheric pressure (Pascals) = 94270

Velocity of undisturbed free stream (Uref, in m/s) = 27.63355

Estimate momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.09146E-03

Estimated momentum thickness Reynolds number = 8763.088

Location of traverse: X/T = 4.4618 Z/T = -.3 (Plane 10, S/T = 0.30)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
8.8527E-04	2.4984E-01	1.0492E-02			-5.3436E-03	1.8916E-04	-2.4870E-01	1.6395E+00	
1.7705E-03	3.0795E-01	1.3074E-02			-5.8326E-03	2.6631E-04	-2.8042E-01	1.1656E+00	
2.8329E-03	4.0554E-01	1.0700E-02			-6.0751E-03	5.1723E-04	-2.3175E-01	8.6129E-01	
3.8952E-03	4.7950E-01	8.9324E-03			-6.0077E-03	8.8830E-04	-1.7254E-01	5.5479E-01	
5.6657E-03	5.3416E-01	8.4524E-03	-3.0940E-01	9.0963E-01	-5.0398E-03	1.4365E-03	-5.4484E-02	3.4620E-01	-1.8643E-03
7.7904E-03	5.6855E-01	9.0227E-03	-2.4531E-01	2.4810E-01	-4.7070E-03	1.7837E-03	-1.6528E-03	1.4004E-01	-1.5957E-03
1.0523E-02	6.0019E-01	7.5480E-03	-2.6128E-01	-1.0035E-01	-3.5680E-03	2.0991E-03	1.4116E-01	3.5027E-02	-1.7566E-03
1.4164E-02	6.3108E-01	7.6803E-03	-1.7825E-01	-2.5397E-01	-3.1422E-03	2.1555E-03	2.1737E-01	-7.3079E-02	-1.5383E-03
1.8414E-02	6.6063E-01	7.1964E-03	-2.0392E-01	-2.3586E-01	-2.6407E-03	2.1723E-03	2.9215E-01	1.6389E-02	-1.5186E-03
2.4079E-02	6.8846E-01	6.7779E-03	-2.9384E-01	-2.1065E-01	-5.1905E-03	1.9890E-03	2.9877E-01	-1.7327E-02	-1.6827E-03
3.1161E-02	7.2475E-01	6.0889E-03	-4.3946E-01	-2.1689E-02	-3.3603E-03	1.7724E-03	4.2214E-01	3.1954E-01	-9.5989E-04
4.0722E-02	7.6619E-01	4.5678E-03	-4.6982E-01	2.1796E-01	-1.9927E-03	1.4361E-03	4.5090E-01	5.6049E-01	-6.9268E-04
5.2408E-02	7.8996E-01	3.4202E-03	-4.1875E-01	2.5652E-01	-4.2144E-03	1.1729E-03	4.1696E-01	6.6273E-01	-3.2709E-04
6.7635E-02	8.0644E-01	2.5902E-03	-2.3886E-01	2.6619E-02	-3.6622E-03	9.4221E-04	5.8683E-02	1.4477E-01	-1.0418E-04
8.6402E-02	8.1183E-01	2.3064E-03	-7.8293E-02	-2.6740E-01	-4.2996E-03	9.4956E-04	-6.1796E-02	6.0896E-02	-9.9112E-05
1.1119E-01	8.1247E-01	2.2240E-03	-9.5641E-02	-2.9346E-01	-5.3325E-03	9.7036E-04	-5.6720E-02	-3.3237E-02	-9.0321E-05
1.4235E-01	8.1328E-01	2.2713E-03	-1.2409E-01	-3.4124E-01	-3.9413E-03	9.8439E-04	-4.6482E-02	4.9667E-02	-2.2500E-04
1.8237E-01	8.1905E-01	2.3414E-03	-2.1072E-01	-3.0635E-01	-4.8127E-03	9.6134E-04	4.4114E-02	1.2526E-02	-2.2595E-04
2.3336E-01	8.3279E-01	2.2915E-03	-3.6641E-01	-1.6662E-01	-4.1090E-03	9.2355E-04	4.9928E-02	1.1697E-01	-3.2084E-04
2.9851E-01	8.5908E-01	1.9361E-03	-5.6274E-01	-2.3062E-02	-1.0525E-03	7.4764E-04	2.9995E-01	2.5297E-01	-2.9438E-04
3.8173E-01	8.8979E-01	1.3201E-03	-8.8576E-01	6.2652E-01	-2.4692E-04	5.2932E-04	4.3984E-01	4.1963E-01	-2.1143E-04
4.8796E-01	9.2048E-01	4.0783E-04	-1.3068E+00	2.6222E+00	1.8937E-03	2.6304E-04	7.3882E-01	1.5345E+00	-8.7180E-05
6.2394E-01	9.3006E-01	6.2062E-05	1.0547E-01	1.5342E-01	2.1468E-03	5.4625E-05	2.8821E-01	3.5636E-01	1.0666E-05
7.9710E-01	9.2961E-01	1.0382E-04	6.8482E-02	-5.7593E-02	2.8228E-03	4.0979E-05	-2.5787E-02	-1.4026E-01	5.6389E-05
1.0184E+00	9.3032E-01	3.2404E-05	-3.9303E-02	-1.9624E-01	4.3484E-03	4.6857E-05	-5.1708E-02	7.1802E-03	2.6511E-05
1.2376E+00	9.2937E-01	3.1294E-05	-5.6541E-02	-.6475E-01					
1.5917E+00	9.2988E-01	2.5705E-05	-1.1363E-01	-1.1766E-01	1.1659E-03	1.5694E-05	7.4264E-03	-1.5727E-01	1.1008E-05

Table F.6-9 Velocity measurements made at S/T = 0.30 with the UV system of the laser anemometer, plane 10

File E594770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 23.8

density (kilograms per meter cubed) = .118626

viscosity (meters squared per second) = 1.636524E-05

Atmospheric pressure (Pascals) = 95330

Velocity of undisturbed free stream (Uref, in m/s) = 27.67027

Estimated momentum thickness at X/T = -2.146, Z.T=0 (x) = 4.090375E-03

Estimated momentum thickness Reynolds number = 6915.975

Location of traverse: X/T = 4.4618 Z/T = -.2 (Plane 10 S/T = 0.20)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	U'/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
8.8527E-04	2.3838E-01	1.0734E-02			-2.0623E-03	4.7114E-05	-7.8602E-01	3.0318E+00	
1.9476E-03	2.9562E-01	1.1016E-02			-2.8593E-03	1.0796E-04	-3.0836E-01	1.6168E+00	
3.0099E-03	3.7215E-01	8.7172E-03			-3.2772E-03	2.4030E-04	-2.0822E-01	1.2375E+00	
4.2493E-03	4.1877E-01	9.9610E-03	-6.9659E-02	2.6290E-01	-3.9121E-03	4.8840E-04	-2.9220E-01	1.2187E+00	-1.3893E-03
5.8428E-03	4.6008E-01	8.4144E-03	-1.6442E-01	6.2322E-01	-3.6220E-03	1.0937E-03	-1.5005E-01	6.0606E-01	-1.6142E-03
7.9674E-03	5.1987E-01	8.0893E-03	-1.9374E-01	1.3937E-01	-3.9525E-03	1.6535E-03	-2.3344E-02	2.7502E-01	-1.6854E-03
1.0800E-02	5.4941E-01	7.9936E-03	-1.3880E-01	-1.0647E-01	-3.9887E-03	1.9978E-03	9.4957E-02	3.5173E-02	-1.5324E-03
1.4341E-02	5.8193E-01	7.6908E-03	-1.8440E-01	-1.4751E-01	-3.1088E-03	2.2627E-03	1.5391E-01	5.5790E-03	-1.4259E-03
1.8591E-02	6.0809E-01	7.6389E-03	-2.0532E-01	-1.5159E-01	-3.4455E-03	2.4233E-03	2.2677E-01	1.1373E-01	-1.3650E-03
2.4256E-02	6.3882E-01	7.1586E-03	-2.3106E-01	-2.2825E-01	-4.2215E-03	2.3759E-03	2.7134E-01	1.1042E-01	-1.4228E-03
3.1339E-02	6.4802E-01	6.9819E-03	-2.3444E-01	-2.0680E-01	-6.9669E-03	2.2195E-03	1.8851E-01	-8.7399E-02	-1.0956E-03
4.0899E-02	6.8766E-01	6.0750E-03	-3.4365E-01	-1.5626E-01	-6.4866E-03	2.0649E-03	2.0882E-01	7.6824E-02	-7.7714E-04
5.2585E-02	7.2505E-01	5.3082E-03	-4.1982E-01	4.0105E-02	-7.6845E-03	2.1095E-03	1.3381E-01	2.4877E-01	-3.5147E-05
6.7812E-02	7.5183E-01	4.2123E-03	-3.7291E-01	-2.4709E-02	-7.8063E-03	2.1554E-03	8.4538E-02	6.4521E-02	-3.4810E-04
8.6579E-02	7.6256E-01	4.0959E-03	-3.7452E-01	1.9838E-02	-1.0463E-02	2.3751E-03	8.8051E-02	1.1092E-01	-2.7219E-04
1.1137E-01	7.7581E-01	3.9836E-03	-4.2815E-01	2.1223E-02	-1.3518E-02	2.5157E-03	2.2615E-01	1.9510E-01	-5.2346E-04
1.4253E-01	7.9627E-01	3.8706E-03	-5.3956E-01	2.3785E-01	-1.2158E-02	2.1654E-03	4.5278E-01	3.7133E-01	-6.2641E-04
1.8254E-01	8.2476E-01	2.7675E-03	-4.9373E-01	9.5973E-02	-1.3451E-02	1.4532E-03	4.9425E-01	5.2346E-01	-7.8218E-04
2.3353E-01	8.4995E-01	2.0060E-03	-5.0236E-01	1.9431E-01	-1.2143E-02	9.5273E-04	4.0320E-01	7.2669E-01	-2.1042E-04
2.9869E-01	8.7590E-01	1.3258E-03	-7.3623E-01	5.9415E-01	-9.8519E-03	5.6463E-04	2.2488E-01	3.7571E-01	-1.0102E-04
3.8191E-01	8.9425E-01	7.9870E-04	-9.1200E-01	9.9610E-01	-6.4615E-03	3.8862E-04	4.3461E-01	6.6435E-01	-1.2674E-04
4.8814E-01	9.1282E-01	2.2327E-04	-3.7244E-01	1.0398E+00	-5.4277E-03	1.8199E-04	6.5647E-01	1.4519E+00	-3.9723E-05
6.2411E-01	9.1393E-01	1.0234E-04	2.1146E-01	-8.6640E-02	-4.4550E-03	7.6140E-05	9.9801E-02	2.9686E-02	1.7555E-05
7.9727E-01	9.1354E-01	9.1843E-05	2.0206E-01	-5.4108E-02	8.8369E-04	5.6005E-05	-8.0902E-02	3.6225E-02	1.4461E-05
1.0186E+00	9.1309E-01	9.0598E-05	2.4607E-01	-8.6013E-02	2.0652E-03	5.8763E-05	-1.4944E-01	1.1721E-01	1.0051E-05
1.2378E+00	9.1350E-01	9.4296E-05	1.8313E-01	5.5758E-02	-7.9585E-05	5.1462E-05	-1.0050E-01	2.5407E-02	1.7041E-05
1.5919E+00	9.1409E-01	9.9482E-05	2.2250E-01	5.8807E-02	-8.8473E-05	5.0658E-05	-7.1262E-02	8.7405E-02	1.7928E-05

Table F.6-10 Velocity measurements made at S/T = 0.20 with the UV system of the laser anemometer, plane 10

File E595770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.6
 density (kilograms per meter cubed) = 1.116321
 viscosity (meters squared per second) = 1.643308E-05

Atmospheric pressure (Pascals) = 95390

Velocity of undisturbed free stream (Uref, in m/s) = 27.65011

Estimated momentum thickness at X/T = -2.146, Z/T=0 (n) = 4.09097E-03

Estimated momentum thickness Reynolds number = 6893.419

Location of traverse; X/T = 4.4618 Z/T = -.1 (Plane 10, S/T = 0.10)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.2394E-03	1.4453E-01	5.2677E-03			-2.4966E-03	7.3553E-05	-5.1082E-01	1.8515E+00	
1.9476E-03	1.7407E-01	4.8623E-03			-3.1902E-03	1.2340E-04	-3.9133E-01	1.8431E+00	
3.0099E-03	2.6231E-01	6.1344E-03			-5.1316E-03	3.2201E-04	-4.0413E-01	1.3503E+00	
4.0722E-03	3.1230E-01	6.8377E-03			-6.1161E-03	6.0765E-04	-2.9639E-01	7.8725E-01	
5.1346E-03	3.4133E-01	7.6307E-03	1.2876E-01	2.8865E-01	-7.2541E-03	1.0520E-03	-2.9180E-01	7.3144E-01	-5.6236E-04
6.9051E-03	3.7585E-01	7.7234E-03	1.8120E-02	-4.2099E-02	-8.6308E-03	1.7162E-03	-2.3030E-01	4.0741E-01	-1.1107E-03
9.0297E-03	4.0332E-01	8.0334E-03	1.4154E-02	-2.5624E-01	-6.8141E-03	2.2956E-03	-8.1745E-02	-3.5739E-02	-1.2531E-03
1.1863E-02	4.1767E-01	8.4795E-03	-5.3819E-02	-2.6461E-01	-6.9603E-03	2.8478E-03	-1.2338E-02	2.4550E-02	-1.3238E-03
1.5404E-02	4.3852E-01	8.8327E-03	-8.7368E-02	-3.1929E-01	-8.9227E-03	3.1896E-03	7.2722E-02	3.9547E-02	-1.3069E-03
1.9653E-02	4.5929E-01	8.7012E-03	-1.2287E-01	-2.5931E-01	-8.3257E-03	3.2360E-03	7.498E-02	-1.0190E-01	-1.3944E-03
2.5319E-02	4.9050E-01	8.6522E-03	-1.8902E-01	-2.2740E-01	-9.4917E-03	5.4187E-03	2.5635E-02	-7.6366E-02	-1.1613E-03
3.2401E-02	5.2024E-01	8.0860E-03	-1.9998E-01	-2.1734E-01	-8.3900E-03	3.6862E-03	5.3851E-02	1.2517E-01	-1.0244E-03
4.1962E-02	5.5261E-01	8.2418E-03	-2.1177E-01	-1.8287E-01	-1.0977E-02	3.8883E-03	-6.1272E-02	1.6677E-01	-1.5780E-04
5.3647E-02	5.6711E-01	8.6139E-03	-2.6081E-01	-1.6763E-01	-1.1559E-02	4.2002E-03	-9.7965E-02	7.3290E-02	5.2077E-04
6.8874E-02	5.7397E-01	9.5266E-03	-2.3127E-01	-2.3016E-01	-1.6564E-02	4.9991E-03	-2.4976E-01	1.3793E-01	1.0734E-03
8.7642E-02	5.5184E-01	1.0642E-02	-1.9268E-01	-2.7855E-01	-1.8961E-02	5.6515E-03	-2.4707E-01	-9.9230E-02	4.1183E-04
1.1278E-01	5.3517E-01	1.0717E-02	-3.3740E-02	-4.0932E-01	-2.1574E-02	6.4889E-03	-1.6992E-01	-2.0537E-01	-5.0944E-04
1.4359E-01	5.4107E-01	1.2439E-02	-7.9167E-02	-3.7153E-01	-1.9323E-02	7.1861E-03	-8.4443E-02	-1.1038E-01	-1.1355E-03
1.8360E-01	5.9920E-01	1.3955E-02	-2.4536E-01	-4.2131E-01	-1.4327E-02	7.0123E-03	2.4264E-02	-1.5185E-01	-1.7744E-03
2.3460E-01	6.6875E-01	1.1358E-02	-4.5331E-01	-1.7389E-01	-1.5495E-02	6.1140E-03	6.7302E-02	-3.7265E-02	-1.3397E-03
2.9975E-01	7.2322E-01	3.4655E-03	-5.1519E-01	-7.9594E-02	-1.5061E-02	5.1867E-03	9.0866E-02	3.8564E-02	-3.8902E-04
3.8297E-01	7.4656E-01	6.9600E-03	-5.1928E-01	9.3317E-04	-1.0635E-02	4.4287E-03	4.8116E-02	2.4873E-02	6.8231E-05
4.8920E-01	7.2803E-01	6.7053E-03	-3.4848E-01	-2.8053E-01	-4.7225E-03	4.5792E-03	-3.7632E-02	-2.0469E-02	5.9553E-04
6.2518E-01	6.7539E-01	7.8806E-03	-2.9217E-01	-2.8761E-01	-2.0138E-04	5.2601E-03	-4.4915E-02	-1.8859E-01	8.2693E-04
7.9834E-01	6.6650E-01	7.8752E-03	-2.8868E-01	-2.9356E-01	4.1009E-04	5.3587E-03	-7.0193E-02	-1.4654E-01	5.5017E-04
1.0197E+00	6.5909E-01	7.8552E-03	-2.4478E-01	-2.4784E-01	5.2572E-04	5.5754E-03	1.1507E-02	-1.2866E-01	5.4334E-04
1.2388E+00	6.5352E-01	7.8275E-03	-2.1830E-01	-3.4535E-01	3.6326E-04	5.5230E-03	-2.1502E-02	-2.5730E-01	6.2468E-04
1.5930E+00	6.7196E-01	7.6049E-03	-2.4741E-01	-2.5579E-01	-5.1600E-03	5.4245E-03	-6.5053E-02	-1.6872E-01	5.6326E-04

Table F.6-11 Velocity measurements made at S/T = 0.10 with the UV system of the laser anemometer, plane 10

File E596770.RES

Non-redundant U and V component velocity measurements obtained with the UV optical system of the laser anemometer

Flow temperature (degrees centigrade) = 24.5

density (kilograms per meter cubed) = 1.116462

viscosity (meters squared per second) = 1.642676E-05

Atmospheric pressure (Pascals) = 95370

Velocity of undisturbed free stream (Uref, in m/s) = 27.67396

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090265E-03

Estimated momentum thickness Reynolds number = 6890.817

Location of traverse; X/T = 4.4618 Z/T = 0 (Plane 10, S/T = 0.00)

Y/T	U/Uref	u2/Uref2	U-skewness	U-kurtosis	V/Uref	v2/Uref2	V-skewness	V-kurtosis	uv/Uref2
1.4164E-03	1.1466E-01	3.6219E-03			5.4950E-04	1.3034E-05	-1.8317E-01	4.9413E-01	
2.4788E-03	1.2829E-01	4.1219E-03			-3.3181E-04	4.2676E-05	-9.6098E-01	3.2177E+00	
3.5411E-03	1.6537E-01	3.7502E-03			-6.1581E-04	9.1105E-05	-5.8169E-01	2.3164E+00	
4.6034E-03	2.0655E-01	3.1315E-03			-1.7863E-03	2.2411E-04	-7.2882E-01	1.9827E+00	
6.5739E-03	2.4172E-01	3.0426E-03			-3.5686E-03	4.7988E-04	-1.1174E-01	1.2252E+00	
8.4966E-03	2.6971E-01	3.5866E-03	3.6701E-01	3.3747E-01	-8.4081E-03	1.2340E-03	-4.8126E-01	4.7304E-01	-4.0309E-04
1.1331E-02	2.8440E-01	3.8191E-03	3.0926E-01	1.7924E-02	-1.3524E-02	1.9621E-03	-3.3353E-01	4.5584E-02	-5.0108E-04
1.4873E-02	2.9716E-01	4.1953E-03	3.3667E-01	-5.6568E-02	-1.6925E-02	2.5464E-03	-1.7980E-01	-5.6979E-02	-8.8704E-04
1.9122E-02	3.0691E-01	4.6988E-03	3.2967E-01	-6.3553E-02	-1.9954E-02	3.0998E-03	-1.3068E-01	-6.9757E-02	-8.9031E-04
2.4788E-02	3.1938E-01	5.1099E-03	3.1913E-01	-1.5113E-01	-1.8517E-02	3.2617E-03	-1.1528E-01	-8.2723E-02	-9.1942E-04
3.1870E-02	3.3212E-01	5.6009E-03	3.3252E-01	-1.4540E-01	-1.8367E-02	3.4691E-03	-9.4921E-02	-9.2231E-02	-9.9727E-04
4.1431E-02	3.5146E-01	6.2801E-03	3.1874E-01	-2.3324E-01	-1.5392E-02	3.6538E-03	-5.8897E-02	-1.1391E-01	-7.9658E-04
5.3116E-02	3.5845E-01	6.6658E-03	3.4012E-01	1.2893E-01	-7.6576E-03	3.8560E-03	-6.0544E-02	-6.9220E-02	-4.9382E-04
6.8343E-02	3.6740E-01	7.1947E-03	3.5580E-01	-2.0345E-01	8.3731E-04	4.1201E-03	-7.0502E-02	-1.1768E-01	-1.1460E-04
8.7110E-02	3.6571E-01	7.0222E-03	3.2504E-01	-2.7223E-01	5.0158E-03	4.5347E-03	-9.8151E-02	-9.5826E-02	3.5303E-04
1.1190E-01	3.4722E-01	6.5567E-03	4.7145E-01	-2.7703E-02	3.2934E-03	5.4014E-03	-9.0739E-02	4.0741E-02	7.6294E-04
1.4306E-01	3.3997E-01	5.9835E-03	5.0294E-01	-3.8211E-03	-2.5737E-02	6.3525E-03	-6.9858E-02	-1.7849E-01	-1.2097E-05
1.8307E-01	3.5741E-01	6.6871E-03	4.8601E-01	-1.1051E-01	-4.7667E-02	5.7355E-03	-1.2670E-02	-1.3770E-01	-1.2606E-03
2.3407E-01	3.9926E-01	7.1159E-03	4.4818E-01	-8.2907E-02	-5.1241E-02	5.4808E-03	1.0159E-02	-1.4443E-01	-6.7517E-04
2.9922E-01	4.2890E-01	7.2506E-03	4.3634E-01	-1.1953E-01	-3.9120E-02	5.6046E-03	5.4821E-02	-4.1279E-02	-1.8489E-04
3.8244E-01	4.4432E-01	6.9806E-03	3.8103E-01	-2.1704E-01	-2.2628E-02	5.0659E-03	-2.6209E-02	-9.7572E-02	-6.1379E-05
4.8867E-01					-6.6456E-03	4.6939E-03	7.5360E-03	-1.3607E-01	
6.2465E-01	3.9682E-01	6.0618E-03	4.4351E-01	-8.7256E-02	1.3107E-03	4.6440E-03	-5.4760E-03	-1.1087E-01	1.9089E-04
7.9780E-01	3.6399E-01	5.1143E-03	4.3109E-01	-1.4193E-01	2.9881E-03	4.3641E-03	1.3760E-02	-9.1996E-02	3.5196E-04
1.0191E+00	3.5493E-01	4.7212E-03	3.6366E-01	-2.9046E-01	-2.4490E-03	4.2430E-03	-2.4814E-03	-2.2264E-01	1.7090E-04
1.2383E+00					3.5582E-03	4.2005E-03	2.0515E-03	-1.7091E-01	
1.5924E+00					-3.6222E-03	4.0754E-03	-2.7898E-02	6.9080E-02	

Table F.6-12 Velocity measurements made at S/T = 0.00 with the UV system of the laser anemometer, plane 10

File E572770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.4

density (kilograms per meter cubed) = 1.112095

viscosity (meters squared per second) = 1.648699E-05

Atmospheric pressure (Pascals) = 94965

Velocity of undisturbed free stream (Uref, in m/s) = 27.68115

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.090052E-03

Estimated momentum thickness Reynolds number = 6867.073

Location of traverse; X/T = 4.4618 Z/T = -1.6 (Plane 10, S/T = 1.60)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.5935E-03	1.5249E-02	1.5026E-03	
2.1246E-03	1.6914E-02	1.6545E-03	
3.0099E-03	2.0093E-02	1.9297E-03	
4.0722E-03	2.1523E-02	2.2575E-03	
5.1346E-03	2.5095E-02	2.5964E-03	
6.9051E-03	3.2463E-02	3.2164E-03	1.1575E-03
9.0297E-03	3.5632E-02	3.4204E-03	6.8972E-04
1.1863E-02	4.0062E-02	3.5518E-03	4.0627E-04
1.5404E-02	4.2114E-02	3.5104E-03	3.6294E-04
1.9653E-02	4.4397E-02	3.4880E-03	5.4601E-04
2.5319E-02	4.6476E-02	3.4386E-03	3.7933E-04
3.2401E-02	4.9976E-02	3.3271E-03	3.6927E-04
4.3024E-02	5.1601E-02	3.0903E-03	3.4994E-04
5.4356E-02	5.2413E-02	2.9526E-03	1.8684E-04
6.8874E-02	5.2933E-02	2.9779E-03	2.9748E-04
8.7996E-02	5.2397E-02	2.6773E-03	3.6209E-04
1.1243E-01	5.1281E-02	2.5848E-03	2.5087E-04
1.4359E-01	4.9556E-02	2.3253E-03	3.5300E-04
1.8396E-01	5.1102E-02	2.1947E-03	3.6529E-04
2.3460E-01	5.3279E-02	2.0046E-03	2.9759E-04
2.9975E-01	5.4441E-02	1.7536E-03	2.5125E-04
3.8297E-01	5.7531E-02	1.2737E-03	1.5168E-04
4.9097E-01	5.9417E-02	6.3249E-04	8.2842E-06
6.2518E-01	6.2170E-02	9.6506E-05	8.4074E-06
7.9834E-01	6.2503E-02	2.2338E-05	1.7823E-05
1.0197E+00	6.3295E-02	2.5872E-05	2.1756E-05
1.2388E+00	6.3205E-02	2.7774E-05	1.8394E-05
1.5930E+00	6.1189E-02	1.9548E-05	1.7401E-05

Table F.6-13 Velocity measurements made at S/T = 1.60 with the UW system of the laser anemometer, plane 10

File E571770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.65

density (kilograms per meter cubed) = 1.112974

viscosity (meters squared per second) = 1.648462E-05

Atmospheric pressure (Pascals) = 95120

Velocity of undisturbed free stream (Uref, in m/s) = 27.70107

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.089464E-03

Estimated momentum thickness Reynolds number = 6872.012

Location of traverse; X/T = 4.4618 Z/T = -1.4 (Plane 10, S/T = 1.40)

Y/T	W/Uref	w2/Uref2	uw/Uref2
9.5609E-04	1.0162E-02	1.2394E-03	
1.8059E-03	9.5981E-03	1.4456E-03	
2.7266E-03	1.2425E-02	1.7493E-03	
3.4348E-03	1.4774E-02	1.9941E-03	
4.4972E-03	1.7704E-02	2.3542E-03	
5.5595E-03	2.0510E-02	2.7282E-03	7.3106E-04
7.3300E-03	2.4430E-02	3.1416E-03	9.0514E-04
9.4547E-03	2.7032E-02	3.3053E-03	6.9004E-04
1.2288E-02	3.0740E-02	3.4541E-03	4.9687E-04
1.5829E-02	3.2669E-02	3.3789E-03	6.0199E-04
2.0786E-02	3.5105E-02	3.3453E-03	4.3287E-04
2.5744E-02	3.8067E-02	3.2630E-03	1.7527E-04
3.2826E-02	3.9361E-02	3.1965E-03	2.7993E-04
4.2387E-02	3.9863E-02	3.2528E-03	3.5396E-04
5.4072E-02	4.3143E-02	3.1345E-03	4.5247E-04
6.9299E-02	4.2092E-02	2.9499E-03	4.3517E-04
8.8067E-02	4.1787E-02	2.8443E-03	5.0512E-04
1.1285E-01	4.2236E-02	2.6249E-03	2.9166E-04
1.4402E-01	4.1330E-02	2.5110E-03	4.4170E-04
1.8403E-01	4.3182E-02	2.3003E-03	4.9448E-04
2.3502E-01	4.7265E-02	2.1542E-03	5.4391E-04
3.0018E-01	5.2244E-02	1.8619E-03	3.3647E-04
3.8339E-01	5.5816E-02	1.3595E-03	1.8098E-04
4.8962E-01	5.9161E-02	7.1353E-04	1.0236E-04
6.2560E-01	6.2628E-02	1.0102E-04	-1.1616E-05
7.9876E-01	6.2271E-02	2.3739E-05	1.6571E-05
1.0201E+00	6.2580E-02	2.0580E-05	1.9361E-05
1.2393E+00	6.1951E-02	2.0833E-05	2.0113E-05
1.5934E+00	6.0388E-02	2.0022E-05	1.7325E-05

Table F.6-14 Velocity measurements made at S/T = 1.40 with the UW system of the laser anemometer, plane 10

File E570770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 24.7

density (kilograms per meter cubed) = 1.113957

viscosity (meters squared per second) = 1.647221E-05

Atmospheric pressure (Pascals) = 95220

Velocity of undisturbed free stream (Uref, in m/s) = 27.7059

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089322E-03

Estimated momentum thickness Reynolds number = 6878.151

Location of traverse: X/T = 4.4618 Z/T = -1.2 (Plane 10, S/T = 1.20)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.9476E-03	7.4248E-03	1.5387E-03	
2.4558E-03	7.8860E-03	1.8257E-03	
3.3640E-03	9.1788E-03	2.0891E-03	
4.4263E-03	1.2569E-02	2.5996E-03	
5.4887E-03	1.3737E-02	2.9544E-03	
6.5510E-03	1.7680E-02	3.1809E-03	5.8178E-04
8.3215E-03	1.9791E-02	3.6171E-03	7.2438E-04
1.0446E-02	2.3218E-02	3.8953E-03	5.7858E-04
1.3279E-02	2.6937E-02	4.0232E-03	3.8877E-04
1.6820E-02	2.9018E-02	4.0612E-03	3.4359E-04
2.1069E-02	3.1115E-02	3.9982E-03	4.6132E-04
2.6735E-02	3.4189E-02	3.8859E-03	6.5606E-04
3.3994E-02	3.6643E-02	3.8993E-03	3.1474E-05
4.3378E-02	3.2787E-02	3.8598E-03	1.5011E-04
5.5064E-02	3.6900E-02	3.6128E-03	1.0742E-04
7.0290E-02	3.8286E-02	3.7043E-03	3.0798E-04
8.9412E-02	3.8582E-02	3.5988E-03	5.7277E-04
1.1385E-01	4.0391E-02	3.5699E-03	5.8280E-04
1.4501E-01	4.0326E-02	3.5248E-03	8.6522E-04
1.8502E-01	4.2347E-02	3.5153E-03	9.5097E-04
2.3601E-01	4.8767E-02	3.3013E-03	1.0278E-03
3.0117E-01	5.8070E-02	2.7525E-03	7.2261E-04
3.8438E-01	6.5950E-02	1.9186E-03	3.0935E-04
4.9062E-01	7.1964E-02	8.9007E-04	9.5269E-05
6.2659E-01	7.4007E-02	1.1300E-04	3.1432E-05
7.9975E-01	7.3150E-02	2.7202E-05	2.1992E-05
1.0211E+00	7.2228E-02	2.6048E-05	2.3618E-05
1.2403E+00	7.0275E-02	2.7649E-05	2.0460E-05
1.5944E+00	6.7720E-02	2.3143E-05	1.9985E-05

Table F.6-15 Velocity measurements made at S/T = 1.20 with the UW system of the laser anemometer, plane 10

File E558770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.4

density (kilograms per meter cubed) = 1.105859

viscosity (meters squared per second) = 1.662291E-05

Atmospheric pressure (Pascals) = 94750

Velocity of undisturbed free stream (Uref, in m/s) = 27.44282

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.097132E-03

Estimated momentum thickness Reynolds number = 6763.972

Location of traverse; X/T = 4.4618 Z/T = -1 (Plane 10, S/T = 1.00)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.8329E-03	-1.9822E-02	1.9361E-03	
3.5411E-03	-2.2443E-02	2.0837E-03	
4.6034E-03	-2.2862E-02	2.3980E-03	
5.6657E-03	-2.5526E-02	2.6659E-03	
6.7280E-03	-2.4211E-02	2.7719E-03	-1.1501E-03
8.4986E-03	-2.2895E-02	2.9628E-03	-4.2066E-04
1.0623E-02	-2.3406E-02	3.3291E-03	-3.5872E-04
1.3456E-02	-2.1520E-02	3.3894E-03	
1.6997E-02	-2.1742E-02	3.4620E-03	-4.1851E-04
2.1246E-02	-1.8788E-02	3.6233E-03	-4.4280E-04
2.6912E-02	-1.6771E-02	3.6781E-03	-5.4443E-04
3.3994E-02	-1.7186E-02	3.7933E-03	-6.5826E-04
4.3555E-02	-1.6101E-02	3.8616E-03	-4.5899E-04
5.5241E-02	-1.1288E-02	3.9860E-03	-2.9751E-04
7.0467E-02	-1.5637E-02	3.9522E-03	-4.8074E-04
8.9589E-02	-1.2656E-02	3.9355E-03	-1.3414E-04
1.1402E-01	-1.2452E-02	3.7323E-03	1.1167E-04
1.4518E-01	-7.8805E-03	3.7349E-03	6.4101E-04
1.8520E-01	6.0403E-04	3.6748E-03	8.0166E-04
2.3619E-01	1.2399E-02	3.3342E-03	8.3496E-04
3.0135E-01	2.2646E-02	2.9849E-03	8.8850E-04
3.8562E-01	2.8959E-02	2.0621E-03	3.0452E-04
4.9079E-01	2.9784E-02	8.4415E-04	-1.0591E-04
6.2677E-01	2.8054E-02	9.4811E-05	-6.2986E-05
7.9993E-01	2.5147E-02	2.8057E-05	2.6493E-05
1.0212E+00	2.3510E-02	2.0965E-05	2.7510E-05
1.2404E+00	2.0326E-02	1.9746E-05	2.1101E-05
1.5945E+00	1.6716E-02	1.9296E-05	2.0113E-05

Table F.6-16 Velocity measurements made at S/T = 1.00 with the UW system of the laser anemometer, plane 10

File: E557770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.5

density (kilograms per meter cubed) = 1.104846

viscosity (meters squared per second) = 1.664242E-05

Atmospheric pressure (Pascals) = 94695

Velocity of undisturbed free stream (Uref, in m/s) = 27.45801

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.096678E-03

Estimated momentum thickness Reynolds number = 6759.029

Location of traverse; X/T = 4.4618 Z/T = -.8 (Plane 10, S/T = 0.80)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-3.3863E-02	2.2922E-03	
1.7705E-03	-3.4902E-02	2.4105E-03	
3.1870E-03	-3.4224E-02	2.3394E-03	
3.8952E-03	-3.8104E-02	2.6633E-03	
4.9575E-03	-4.0161E-02	3.0991E-03	
6.7280E-03	-4.4033E-02	3.6735E-03	-6.6857E-04
8.8527E-03	-4.1703E-02	3.7875E-03	-5.3246E-05
1.1686E-02	-4.1395E-02	3.9470E-03	-4.6366E-04
1.5227E-02	-3.6647E-02	3.7752E-03	-4.6836E-04
1.9476E-02	-3.3259E-02	3.6561E-03	-4.3307E-04
2.5142E-02	-2.9361E-02	3.4285E-03	-6.0155E-04
3.2224E-02	-2.9209E-02	3.2421E-03	-3.1695E-04
4.1785E-02	-2.5281E-02	2.7896E-03	-4.6869E-04
5.3824E-02	-1.9245E-02	2.7651E-03	-5.2020E-04
6.8697E-02	-1.4757E-02	2.3979E-03	-6.3009E-04
8.7465E-02	-7.3554E-03	2.4102E-03	-6.1416E-04
1.1225E-01	6.5015E-03	2.5702E-03	-3.5391E-04
1.4341E-01	2.5769E-02	2.8039E-03	-3.1418E-04
1.8378E-01	4.8528E-02	3.0934E-03	-3.5509E-05
2.3442E-01	7.2180E-02	3.1831E-03	2.6007E-04
3.0026E-01	9.0868E-02	3.0844E-03	4.7510E-04
3.8492E-01	9.8022E-02	2.0881E-03	7.7549E-05
4.8902E-01	9.9191E-02	6.9572E-04	-1.1336E-04
6.2500E-01	9.4309E-02	6.8527E-05	1.1974E-05
7.9851E-01	8.7584E-02	2.4059E-05	2.0894E-05
1.0195E+00	8.5534E-02	2.1467E-05	2.4801E-05
1.2387E+00	8.1628E-02	2.1166E-05	2.5566E-05
1.5928E+00	7.9851E-02	1.8560E-05	

Table F.6-17 Velocity measurements made at S/T = 0.80 with the UW system of the laser anemometer, plane 10

File E556770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.2

density (kilograms per meter cubed) = 1.107301

viscosity (meters squared per second) = 1.659267E-05

Atmospheric pressure (Pascals) = 94810

Velocity of undisturbed free stream (Uref, in m/s) = 27.42816

Estimated momentum thickness at X/T = -2.146, Z/T=0 (c) = 4.09757E-03

Estimated momentum thickness Reynolds number = 6773.399

Location of traverse: X/T = 4.4618 Z/T = -.6 (Plane 10, S/T = 0.60)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.0623E-03	-3.5966E-02	2.2537E-03	
2.1246E-03	-3.9577E-02	2.5356E-03	
3.1870E-03	-4.0868E-02	2.8265E-03	
4.9575E-03	-4.5420E-02	3.4562E-03	1.7626E-04
7.0622E-03	-4.2942E-02	3.6961E-03	2.9373E-04
9.9150E-03	-3.7677E-02	3.8008E-03	6.9423E-05
1.3456E-02	-3.4686E-02	3.6667E-03	3.2365E-04
1.7705E-02	-3.0152E-02	3.6340E-03	3.8675E-04
2.3725E-02	-2.6836E-02	3.4116E-03	3.8052E-04
3.0807E-02	-2.0969E-02	3.1476E-03	2.9767E-04
4.0014E-02	-1.7257E-02	2.8476E-03	2.8879E-04
5.1700E-02	-9.2657E-03	2.4754E-03	2.9411E-04
6.8343E-02	-2.8063E-03	2.1508E-03	1.3081E-05
8.5694E-02	4.3650E-03	1.9559E-03	7.1068E-07
1.1048E-01	1.3485E-02	1.9523E-03	-1.1257E-04
1.4377E-01	2.6976E-02	1.9904E-03	-1.2854E-04
1.8166E-01	4.1381E-02	2.1502E-03	-9.9999E-05
2.3265E-01	5.7730E-02	2.2994E-03	-1.6520E-04
2.9816E-01	7.1408E-02	1.9005E-03	-3.5720E-04
3.8102E-01	8.0547E-02	1.1861E-03	-2.5107E-04
4.8725E-01	8.0506E-02	3.6744E-04	-9.5964E-05
6.2323E-01	7.6353E-02	3.8738E-05	2.6534E-05
7.9674E-01	6.9019E-02	2.0995E-05	2.1360E-05
1.0177E+00	6.6527E-02	1.5462E-05	1.9332E-05
1.2369E+00	6.3337E-02	1.6303E-05	1.9735E-05
1.5910E+00	6.0060E-02	1.4848E-05	1.5875E-05

Table F.6-18 Velocity measurements made at S/T = 0.60 with the UW system of the laser anemometer, plane 10

File E555770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.35

density (kilograms per meter cubed) = 1.106628

viscosity (meters squared per second) = 1.66092E-05

Atmospheric pressure (Pascals) = 94800

Velocity of undisturbed free stream (Uref, in m/s) = 27.37594

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.099132E-03

Estimated momentum thickness Reynolds number = 6756.35

Location of traverse; X/T = 4.4618 Z/T = -.5 (Plane 10, S/T = 0.50)

Y/T	W/Uref	w2/Uref2	uw/Uref2
8.8527E-04	-3.7486E-02	1.5827E-03	
1.5935E-03	-4.0868E-02	1.9392E-03	
2.6556E-03	-4.6774E-02	2.4283E-03	
4.0722E-03	-5.1436E-02	2.9049E-03	
5.1346E-03	-5.7654E-02	3.4511E-03	
6.1969E-03	-5.5807E-02	3.7087E-03	
7.2592E-03	-5.5529E-02	3.9147E-03	-1.3760E-04
9.3839E-03	-5.1617E-02	4.0354E-03	1.3250E-04
1.2217E-02	-4.6865E-02	4.0430E-03	3.5575E-04
1.5758E-02	-4.2672E-02	3.8945E-03	1.9331E-04
2.0007E-02	-3.8509E-02	3.7457E-03	5.5533E-04
2.5673E-02	-3.7356E-02	3.5908E-03	9.1752E-05
3.2755E-02	-3.0667E-02	3.1924E-03	1.7702E-04
4.2316E-02	-2.3639E-02	2.8414E-03	9.7865E-05
5.4001E-02	-1.7469E-02	2.4244E-03	1.8887E-04
6.9228E-02	-1.0040E-02	1.9496E-03	3.2112E-05
8.8350E-02	-2.1123E-03	1.7886E-03	-1.5134E-04
1.1278E-01	8.4496E-03	1.6780E-03	-1.2242E-04
1.4501E-01	1.8870E-02	1.6783E-03	-1.0619E-04
1.8396E-01	2.9222E-02	1.7682E-03	2.7805E-05
2.3495E-01	4.1092E-02	1.7499E-03	-1.6501E-04
3.0152E-01	5.1381E-02	1.5534E-03	-9.3026E-05
3.8332E-01	5.8345E-02	9.6840E-04	-1.7657E-04
4.8955E-01	6.0669E-02	2.9220E-04	-1.0026E-04
6.2553E-01	5.6956E-02	3.7325E-05	2.3308E-05
7.9869E-01	5.0910E-02	2.1280E-05	2.7147E-05
1.0200E+00	4.7560E-02	1.8723E-05	1.7753E-05
1.2392E+00	4.5180E-02	1.9610E-05	2.2253E-05
1.5933E+00	4.3342E-02	1.9725E-05	2.0662E-05

Table F.6-19 Velocity measurements made at S/T = 0.50 with the UW system of the laser anemometer, plane 10

File E554770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.107927

viscosity (meters squared per second) = 1.657473E-05

Atmospheric pressure (Pascals) = 94800

Velocity of undisturbed free stream (Uref, in m/s) = 27.42097

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.097785E-03

Estimated momentum thickness Reynolds number = 6779.31

Location of traverse; X/T = 4.4418 Z/T = -.4 (Plane 10, S/T = 0.40)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-5.6327E-02	2.1649E-03	
2.4782E-03	-6.1116E-02	2.5837E-03	
3.5411E-03	-6.6660E-02	3.2273E-03	
4.7805E-03	-7.1693E-02	3.6146E-03	
6.7280E-03	-7.0641E-02	4.1898E-03	
8.4986E-03	-7.0202E-02	4.1757E-03	-3.0392E-04
1.1377E-02	-6.3786E-02	4.0982E-03	1.0857E-04
1.4879E-02	-5.9259E-02	4.0467E-03	1.4868E-04
1.9122E-02	-5.4449E-02	3.9067E-03	
2.4788E-02	-4.9447E-02	3.4794E-03	5.3657E-05
3.1870E-02	-4.0561E-02	2.9625E-03	4.4564E-05
4.1431E-02	-3.4903E-02	2.4700E-03	2.3997E-05
5.3116E-02	-2.6143E-02	1.9880E-03	-1.4919E-04
6.8343E-02	-1.9332E-02	1.6035E-03	-2.2526E-04
8.7110E-02	-9.9869E-03	1.4216E-03	-2.2362E-04
1.1190E-01	-1.7036E-03	1.3690E-03	-1.4205E-04
1.4306E-01	7.9870E-03	1.3709E-03	-4.9088E-05
1.8307E-01	1.5954E-02	1.3772E-03	-2.1788E-04
2.3407E-01	2.4876E-02	1.3455E-03	-1.3926E-04
3.0099E-01	3.3283E-02	1.1393E-03	-1.4487E-04
3.8385E-01	3.9193E-02	7.1026E-04	-7.7255E-05
4.8867E-01	4.1510E-02	2.1732E-04	-1.0063E-04
6.2465E-01	3.5635E-02	3.2467E-05	2.7233E-05
7.9780E-01	3.1346E-02	1.9020E-05	1.7584E-05
1.0191E+00	2.6468E-02	2.0934E-05	2.5649E-05
1.2383E+00	2.5054E-02	2.6643E-05	2.3436E-05
1.5924E+00	2.5067E-02	2.4371E-05	1.9794E-05

Table F.6-20 Velocity measurements made at S/T = 0.40 with the UW system of the laser anemometer, plane 10

File E553770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.5

density (kilograms per meter cubed) = 1.099363

viscosity (meters squared per second) = 1.672544E-05

Atmospheric pressure (Pascals) = 94225

Velocity of undisturbed free stream (Uref, in m/s) = 27.44803

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.096976E-03

Estimated momentum thickness Reynolds number = 6723.528

Location of traverse; X/T = 4.4618 Z/T = -.3 (Plane 10, S/T = 0.30)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-4.1188E-02	2.2566E-03	
2.1246E-03	-4.9826E-02	2.7967E-03	
2.6329E-03	-5.1590E-02	3.3030E-03	
3.0952E-03	-5.3666E-02	3.6633E-03	
4.0575E-03	-5.4758E-02	4.0491E-03	
6.0198E-03	-5.3044E-02	4.1698E-03	1.6536E-04
8.4986E-03	-4.8277E-02	4.3650E-03	5.8488E-04
9.9150E-03	-4.1653E-02	4.4744E-03	8.6211E-04
1.2748E-02	-3.5504E-02	4.3751E-03	8.4920E-04
1.6289E-02	-2.7312E-02	4.0375E-03	5.0180E-04
2.6204E-02	-1.4732E-02	3.2966E-03	4.8285E-04
3.3286E-02	-3.3613E-03	2.6471E-03	3.7597E-04
4.2847E-02	4.4390E-03	2.1021E-03	4.5122E-04
5.4533E-02	1.1982E-02	1.5162E-03	7.3100E-05
6.9759E-02	1.9843E-02	1.2358E-03	2.7696E-05
8.8527E-02	2.6196E-02	1.1530E-03	-3.1343E-05
1.1331E-01	3.2047E-02	1.1306E-03	-9.7855E-05
1.4448E-01	3.9356E-02	1.1558E-03	-8.8724E-05
1.8484E-01	4.8268E-02	1.0912E-03	-5.2843E-05
2.3548E-01	5.7138E-02	1.0384E-03	-1.3013E-04
3.0064E-01	6.3911E-02	8.5343E-04	-1.0360E-04
3.8385E-01	7.1027E-02	5.2563E-04	-2.1952E-05
4.9044E-01	7.1303E-02	1.5820E-04	-7.9668E-05
6.2606E-01	6.5948E-02	3.0637E-05	2.2799E-05
1.2397E+00	5.8646E-02	2.5803E-05	2.5461E-05
1.5938E+00	5.9045E-02	2.6825E-05	2.7920E-05

Table F.6-21 Velocity measurements made at S/T = 0.30 with the UW system of the laser anemometer, plane 10

File E552770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25

density (kilograms per meter cubed) = 1.101207

viscosity (meters squared per second) = 1.667588E-05

Atmospheric pressure (Pascals) = 94225

Velocity of undisturbed free stream (Uref, in m/s) = 27.47628

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.096133E-03

Estimated momentum thickness Reynolds number = 6749.061

Location of traverse: X/T = 4.4618 Z/T = -.2 (Plane 10, S/T = 0.20)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.4164E-03	-3.4717E-02	2.3903E-03	
2.1246E-03	-3.7726E-02	2.7257E-03	
2.8329E-03	-4.2239E-02	3.0169E-03	
3.8952E-03	-4.5038E-02	3.8997E-03	
5.3116E-03	-4.6546E-02	4.4201E-03	1.8170E-03
6.3739E-03	-4.5566E-02	4.8505E-03	1.4483E-03
7.7904E-03	-4.2880E-02	4.9695E-03	1.4525E-03
9.9150E-03	-3.6147E-02	5.1074E-03	1.5254E-03
1.2748E-02	-2.4503E-02	5.1149E-03	1.4297E-03
1.6289E-02	-1.7826E-02	4.9900E-03	1.2727E-03
2.0538E-02	-4.4975E-03	4.5690E-03	1.4406E-03
2.6204E-02	7.6229E-03	4.1528E-03	1.6026E-03
3.3284E-02	2.0387E-02	3.3049E-03	1.4124E-03
4.2847E-02	2.8319E-02	2.8355E-03	1.3491E-03
5.4533E-02	3.6822E-02	2.2770E-03	1.1059E-03
7.0467E-02	4.2365E-02	2.2013E-03	1.1561E-03
8.8527E-02	4.1110E-02	2.2555E-03	1.1422E-03
1.1331E-01	3.9390E-02	2.2791E-03	9.6382E-04
1.4448E-01	5.2640E-02	2.1556E-03	8.0367E-04
1.8449E-01	5.2544E-02	1.6532E-03	3.8706E-04
2.3548E-01	6.3115E-02	1.0787E-03	1.9841E-05
3.0064E-01	7.3068E-02	6.8683E-04	-6.7551E-05
3.8385E-01	7.6008E-02	3.7968E-04	-5.2009E-05
4.9009E-01	7.3232E-02	1.1722E-04	-2.4399E-05
6.2606E-01	6.8612E-02	8.3081E-05	2.4745E-05
7.9958E-01	6.8206E-02	8.8228E-05	2.8082E-05
1.0205E+00	6.6321E-02	8.3944E-05	2.7530E-05
1.2397E+00	6.2494E-02	9.3702E-05	2.4289E-05
1.5938E+00	6.3870E-02	1.0337E-04	2.8413E-05

Table F.6-22 Velocity measurements made at S/T = 0.20 with the UW system of the laser anemometer, plane 10

File E551770.RES

Non-redundant measurements obtained with the UW optical system of the LDV

Flow temperature (degrees centigrade) = 25.6

density (kilograms per meter cubed) = 1.10401

viscosity (meters squared per second) = 1.665935E-05

Atmospheric pressure (Pascals) = 94655

Velocity of undisturbed free stream (Uref, in m/s) = 27.42464

Estimated momentum thickness at X/T = -2.146, Z/T=0 (a) = 4.097675E-03

Estimated momentum thickness Reynolds number = 6745.596

Location of traverse: X/T = 4.4618 Z/T = -.1 (Plane 10, S/T = 0.10)

Y/T	W/Uref	w2/Uref2	uw/Uref2
1.1331E-03	-2.8705E-02	2.7686E-03	
1.9476E-03	-3.2121E-02	3.3282E-03	
3.0099E-03	-3.3697E-02	3.9432E-03	
4.0722E-03	-3.5615E-02	4.4105E-03	
5.1346E-03	-3.5586E-02	4.6645E-03	1.5717E-03
6.5510E-03	-3.2322E-02	5.1325E-03	2.0525E-03
8.6756E-03	-2.5745E-02	5.2977E-03	2.0612E-03
1.1508E-02	-1.5287E-02	5.5549E-03	2.3966E-03
1.5050E-02	-5.9329E-03	5.2280E-03	2.0557E-03
1.9299E-02	5.6759E-03	5.0455E-03	2.1280E-03
2.4965E-02	2.1571E-02	4.5660E-03	1.9790E-03
3.2047E-02	2.9650E-02	4.2034E-03	2.0760E-03
4.1608E-02	3.7181E-02	3.6439E-03	2.0297E-03
5.3293E-02	4.2446E-02	3.2714E-03	2.2262E-03
6.8520E-02	3.9269E-02	3.7279E-03	2.6769E-03
8.7288E-02	2.7213E-02	4.4147E-03	3.1864E-03
1.1278E-01	1.2909E-02	5.1944E-03	3.4666E-03
1.4324E-01	1.6375E-02	5.5049E-03	3.7722E-03
1.8325E-01	3.0200E-02	5.4485E-03	4.1038E-03
2.3495E-01	4.7854E-02	4.1994E-03	2.3876E-03
2.9940E-01	5.1800E-02	2.8046E-03	1.7528E-03
3.8261E-01	5.1976E-02	2.1021E-03	1.3989E-03
4.8885E-01	4.9126E-02	2.2219E-03	1.3970E-03
6.2482E-01	4.1180E-02	2.9310E-03	1.9209E-03
7.9798E-01	4.2240E-02	3.1169E-03	1.6883E-03
1.0193E+00	4.3927E-02	2.9788E-03	2.0479E-03
1.2385E+00	3.7003E-02	3.4181E-03	2.2251E-03
1.5926E+00	3.8500E-02	3.4655E-03	2.3545E-03

Table F.6-23 Velocity measurements made at S/T = 0.10 with the UW system of the laser anemometer, plane 10

File E550770.RES

Non-redundant measurements obtained with the UN optical system of the LDV

Flow temperature (degrees centigrade) = 24.2

density (kilograms per meter cubed) = 1.112609

viscosity (meters squared per second) = 1.647083E-05

Atmospheric pressure (Pascals) = 94945

Velocity of undisturbed free stream (Uref, in m/s) = 27.45418

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.096793E-03

Estimated momentum thickness Reynolds number = 6828.633

Location of traverse; X/T = 4.4618 Z/T = 0 (Plane 10, S/T = 0.00)

Y/T	W/Uref	w2/Uref2	uw/Uref2
2.1246E-03	3.5675E-04	1.9150E-03	
3.0099E-03	-5.9708E-03	1.6821E-03	1.5030E-03
4.0722E-03	-5.0425E-03	2.3588E-03	7.0437E-04
4.9575E-03	-7.5263E-03	2.5752E-03	4.1519E-04
6.0198E-03	-7.8102E-03	3.1161E-03	2.6712E-04
7.7904E-03	-7.4331E-03	3.9854E-03	5.8958E-04
9.9150E-03	-6.0837E-03	4.3620E-03	2.5082E-04
1.2748E-02	-6.1451E-03	4.7869E-03	4.8361E-04
1.6285E-02	-6.0237E-03	5.2090E-03	1.1478E-03
2.0538E-02	-2.6698E-03	5.3063E-03	6.2879E-04
2.6204E-02	-3.2061E-03	5.8202E-03	1.1127E-03
3.3286E-02	-5.0943E-04	6.5697E-03	1.4912E-03
4.2847E-02	-4.1445E-03	7.0632E-03	1.7413E-03
5.5949E-02	-3.2583E-03	7.3774E-03	1.6302E-03
6.9405E-02	-5.6201E-03	7.5162E-03	1.6831E-03
8.8527E-02	-1.2306E-02		
1.1331E-01	-1.2018E-02	5.9802E-03	7.1401E-04
1.4518E-01	-8.4526E-03	5.3272E-03	8.8806E-04
1.8449E-01	-6.0734E-03	6.5714E-03	1.6457E-03
2.3548E-01	-7.2189E-04	8.6350E-03	
3.0170E-01	-1.7218E-02	7.7746E-03	1.1268E-03
3.8385E-01	-2.2050E-02	7.2744E-03	1.1682E-03
4.9079E-01	-1.8140E-02	6.7691E-03	7.8345E-04
6.2606E-01	-2.0891E-02	6.3683E-03	-2.0635E-04
7.9922E-01	-1.7094E-02	7.0105E-03	1.3283E-03
1.0205E+00	-1.7020E-02	6.5863E-03	8.7241E-04
1.2397E+00	-1.7441E-02	6.5120E-03	1.0914E-03

Table F.6-24 Velocity measurements made at S/T = 0.00 with the UW system of the laser anemometer, plane 10

File E618770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22.6

density (kilograms per meter cubed) = 1.123344

viscosity (meters squared per second) = 1.624566E-05

Atmospheric pressure (Fascals) = 95345

Velocity of undisturbed free stream (Uref, in m/s) = 27.5926

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.092674E-03

Estimated momentum thickness Reynolds number = 6951.243

Location of traverse; X/T = 4.4618 Z/T = -1.6 (Plane 10, S/T = 1.60)

Y/T	vw/Uref2
2.3017E-03	-1.1211E-05
3.0099E-03	-1.3843E-04
4.0722E-03	-3.1821E-05
5.1344E-03	4.4013E-06
6.1969E-03	-6.6200E-05
7.9674E-03	4.2975E-05
1.0092E-02	5.5005E-05
1.3279E-02	5.9604E-05
1.6466E-02	-4.5981E-05
2.0715E-02	7.1369E-05
2.6381E-02	-2.2319E-05
3.3463E-02	-5.7409E-05
4.3024E-02	4.9991E-05
5.4710E-02	-1.7309E-05
6.9936E-02	7.5417E-05
8.8704E-02	2.1131E-05
1.1349E-01	9.5357E-05
1.4465E-01	1.6551E-05
1.8467E-01	-1.5700E-04
2.3566E-01	-1.0179E-04
3.0081E-01	-8.1375E-05
3.8403E-01	-4.8515E-06
4.9026E-01	1.1598E-05
6.2624E-01	1.6709E-05
7.9940E-01	1.5809E-05

Table F.6-25 Velocity measurements made at S/T = 1.60 with the VW system of the laser anemometer, plane 10

File E619770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 21.8

density (kilograms per meter cubed) = 1.129523

viscosity (meters squared per second) = 1.6123E-05

Atmospheric pressure (Pascals) = 95610

Velocity of undisturbed free stream (Uref, in m/s) = 27.68408

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089966E-03

Estimated momentum thickness Reynolds number = 7022.699

Location of traverse; X/T = 4.4618 Z/T = -1.4 (Plane 10, S/T = 1.40)

Y/T	vw/Uref2
4.3555E-03	2.2274E-05
5.4178E-03	4.8462E-05
6.4802E-03	-1.4537E-04
7.5425E-03	1.3448E-06
9.3130E-03	-1.0317E-05
1.1792E-02	2.0904E-06
1.4271E-02	-5.3584E-05
1.7812E-02	-1.2560E-04
2.2061E-02	-9.9927E-06
2.7727E-02	-1.5466E-04
3.4809E-02	3.9397E-05
4.4370E-02	-7.0607E-05
5.6055E-02	-5.4784E-05
7.1282E-02	3.8435E-06
9.0050E-02	2.0485E-05
1.1484E-01	4.3531E-05
1.4600E-01	-4.7477E-05
1.8601E-01	-1.3048E-04
2.3700E-01	-1.7012E-04
3.0216E-01	-1.8925E-04
3.8538E-01	-1.6352E-04
4.9161E-01	-1.9633E-04
6.2759E-01	-4.8845E-05

Table F.6-26 Velocity measurements made at S/T = 1.40 with the VW system of the laser anemometer, plane 10

File E620770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.126278

viscosity (meters squared per second) = 1.617791E-05

Atmospheric pressure (Pascals) = 95400

Velocity of undisturbed free stream (Uref, in m/s) = 27.5486

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.093981E-03

Estimated momentum thickness Reynolds number = 6971.447

Location of traverse; X/T = 4.4618 Z/T = -1.2 (Plane 10 , S/T = 1.20)

Y/T	vw/Uref2
1.5935E-03	-7.9386E-05
2.3017E-03	-1.1274E-04
3.3640E-03	-6.8067E-05
4.4263E-03	-5.1317E-04
5.4887E-03	5.0238E-05
7.2592E-03	-2.5418E-05
9.3839E-03	1.9822E-05
1.2217E-02	1.3360E-04
1.5758E-02	3.1158E-05
2.0007E-02	3.3221E-05
2.6027E-02	1.5246E-06
3.2755E-02	3.8985E-05
4.2316E-02	1.1936E-04
5.4001E-02	5.1348E-05
6.9228E-02	6.6694E-05
8.7996E-02	1.8019E-04
1.1278E-01	3.8269E-05
1.4394E-01	9.2178E-05
1.8396E-01	-9.4323E-05
2.3495E-01	-1.8665E-04
3.0011E-01	-3.2404E-04
3.8332E-01	-2.8683E-04
4.8955E-01	-1.0885E-04
6.2553E-01	-3.9414E-05
7.9869E-01	-2.8726E-05

Table F.6-27 Velocity measurements made at S/T = 1.20 with the VW system of the laser anemometer, plane 10

File E606770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23

density (kilograms per meter cubed) = 1.112236

viscosity (meters squared per second) = 1.642502E-05

Atmospheric pressure (Pascals) = 94530

Velocity of undisturbed free stream (Uref, in m/s) = 27.68324

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (m) = 4.08999E-03

Estimated momentum thickness Reynolds number = 6893.395

Location of traverse; $X/T = 4.4616$ $Z/T = -1$ (Plane 10, $S/T = 1.00$)

Y/T	v_w/U_{ref}^2
3.5411E-03	-1.0950E-04
4.6034E-03	-5.1680E-05
5.6657E-03	-3.9444E-06
6.7280E-03	-2.6403E-05
8.4926E-03	1.7484E-05
1.0623E-02	8.0136E-05
1.3456E-02	1.5282E-04
1.6997E-02	1.0816E-04
2.1246E-02	2.7350E-05
2.6912E-02	8.7714E-05
3.3994E-02	-1.0575E-04
4.3555E-02	3.5776E-05
5.5241E-02	-1.3893E-04
7.0822E-02	-2.9298E-05
8.9235E-02	-7.7916E-05
1.1402E-01	-2.1754E-04
1.4518E-01	-2.1623E-04
1.8520E-01	-3.2709E-04
2.3619E-01	-4.8219E-04
3.0135E-01	-5.2170E-04
3.8456E-01	-3.3708E-04
4.9079E-01	3.4735E-05
6.2677E-01	5.5043E-05
7.9993E-01	2.6951E-06

Table F.6-28 Velocity measurements made at $S/T = 1.00$ with the VW system of the laser anemometer, plane 10

File E621770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22.2

density (kilograms per meter cubed) = 1.125279

viscosity (meters squared per second) = 1.620078E-05

Atmospheric pressure (Pascals) = 95380

Velocity of undisturbed free stream (Uref, in m/s) = 27.33612

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.100325E-03

Estimated momentum thickness Reynolds number = 6918.615

Location of traverse; X/T = 4.4618 Z/T = -.8 (Plane 10, S/T = 0.80)

Y/T	vw/Uref2
E.4788E-03	6.8851E-05
4.2493E-03	4.8826E-05
5.3116E-03	1.2245E-05
6.3737E-03	7.5031E-05
8.1445E-03	1.0944E-04
1.0623E-02	1.2583E-04
1.3456E-02	9.9598E-06
1.6643E-02	-3.9636E-05
2.0892E-02	-8.8810E-05
2.6558E-02	-9.0484E-05
3.3640E-02	-2.3373E-04
4.3201E-02	-2.8430E-04
5.4887E-02	-2.0876E-04
7.0113E-02	-3.7137E-04
8.8881E-02	-1.7485E-04
1.1367E-01	-4.1394E-04
1.4483E-01	-3.7432E-04
1.8484E-01	-5.2301E-04
2.3584E-01	-5.1727E-04
3.0099E-01	-3.3886E-04
3.8421E-01	-5.8416E-05
4.9044E-01	-1.7985E-05
6.2642E-01	-1.8853E-05
7.9958E-01	-2.3479E-05

Table F.6-29 Velocity measurements made at S/T = 0.80 with the VW system of the laser anemometer, plane 10

File E604770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22

density (kilograms per meter cubed) = 1.129347

viscosity (meters squared per second) = 1.613394E-05

Atmospheric pressure (Pascals) = 95660

Velocity of undisturbed free stream, in m/s = 27.77713

Estimated momentum thickness at $X/T = -2.146$, $Z/T=0$ (m) = 4.087222E-03

Estimated momentum thickness Reynolds number = 7036.799

Location of traverse; $X/T = 4.4618$ $Z/T = -.6$ (Plane 10, $S/T = 0.60$)

Y/T	v_w/U_{ref2}
2.8329E-03	1.1621E-05
3.5411E-03	-1.4521E-04
4.6034E-03	-1.5445E-04
5.6657E-03	-1.1678E-04
6.7280E-03	-8.0048E-06
8.4986E-03	-8.5127E-05
1.0623E-02	-9.7717E-05
1.3456E-02	-3.0694E-05
1.6957E-02	-1.5514E-04
2.1246E-02	-1.8631E-04
2.6912E-02	-1.5972E-04
3.3994E-02	-2.3378E-04
4.3555E-02	-2.4400E-04
5.5241E-02	-3.8657E-04
7.0467E-02	-4.0085E-04
8.9235E-02	-4.3613E-04
1.1402E-01	-4.4352E-04
1.4518E-01	-5.5491E-04
1.8520E-01	-4.8944E-04
2.3619E-01	-3.7865E-04
3.0135E-01	-6.6780E-05
3.8456E-01	6.6279E-05
4.9079E-01	3.4129E-05
6.2677E-01	5.6851E-05
7.9993E-01	4.1297E-07

Table F.6-30 Velocity measurements made at $S/T = 0.60$ with the VW system of the laser anemometer, plane 10

File E603770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.3

density (kilograms per meter cubed) = 1.11017

viscosity (meters squared per second) = 1.646846E-05

Atmospheric pressure (Pascals) = 94450

Velocity of undisturbed free stream (Uref, in m/s) = 27.76312

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.087635E-03

Estimated momentum thickness Reynolds number = 6891.062

Location of traverse; X/T = 4.4618 Z/T = -.5 (Plane 10, S/T = 0.50)

Y/T	v_1/U_{ref}^2
1.9476E-03	9.4650E-05
2.6558E-03	1.6472E-04
4.0722E-03	9.6366E-05
4.7805E-03	1.5082E-04
5.8426E-03	1.5141E-04
7.6133E-03	6.6786E-05
9.7320E-03	8.1241E-05
1.2571E-02	1.2642E-04
1.6112E-02	-2.1325E-04
2.0361E-02	-1.9861E-04
2.6027E-02	-3.7835E-04
3.3109E-02	-4.0509E-04
4.2670E-02	-3.1361E-04
5.4356E-02	-3.2571E-04
6.9562E-02	-3.4967E-04
8.8704E-02	-3.4313E-04
1.1314E-01	-3.9452E-04
1.4430E-01	-4.2566E-04
1.8431E-01	-4.0468E-04
2.3530E-01	-3.6530E-04
3.0046E-01	-1.6859E-04
3.8368E-01	-4.1375E-05
4.8991E-01	-3.8601E-05
6.2589E-01	1.9291E-05
7.9904E-01	7.4365E-06

Table F.6-31 Velocity measurements made at S/T = 0.50 with the VW system of the laser anemometer, plane 10

File E602770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.2

density (kilograms per meter cubed) = 1.110192

viscosity (meters squared per second) = 1.646384E-05

Atmospheric pressure (Fascals) = 94420

Velocity of undisturbed free stream (Uref, in m/s) = 27.78608

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (θ) = 4.086958E-03

Estimated momentum thickness Reynolds number = 6897.574

Location of traverse; $X/T = 4.4618$ $Z/T = -.4$ (Plane 10, $S/T = 0.40$)

Y/T	vw/Uref2
3.5411E-03	6.3392E-05
4.2493E-03	4.9690E-05
5.3116E-03	5.3773E-04
6.3739E-03	1.3258E-04
8.4986E-03	2.5738E-04
9.2068E-03	7.3260E-05
1.1331E-02	1.3733E-04
1.4164E-02	1.6694E-05
1.7705E-02	6.1600E-05
2.1955E-02	1.3186E-06
2.7620E-02	-1.7544E-04
3.4703E-02	-1.8272E-04
4.4263E-02	-1.1626E-04
5.5949E-02	-1.0670E-04
7.1176E-02	-1.7407E-04
8.9943E-02	-7.2153E-05
1.1473E-01	-1.3032E-04
1.4589E-01	-1.5996E-04
1.8591E-01	-1.5863E-04
2.3690E-01	-8.4186E-05
3.0205E-01	-5.0962E-05
3.8527E-01	1.4168E-05
4.9150E-01	8.5195E-05
6.2748E-01	5.4491E-05
8.0064E-01	1.1724E-04

Table F.6-32 Velocity measurements made at $S/T = 0.40$ with the VW system of the laser anemometer, plane 10

File E601770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.9

density (kilograms per meter cubed) = 1.110624

viscosity (meters squared per second) = 1.648742E-05

Atmospheric pressure (Fascals) = 94680

Velocity of undisturbed free stream (Uref, in m/s) = 27.70713

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.089285E-03

Estimated momentum thickness Reynolds number = 6872.048

Location of traverse: X/T = 4.4618 Z/T = -.3 (Plane 10, S/T = 0.30)

Y/T	vw/Uref2
4.2493E-03	1.2209E-04
4.9575E-03	1.0740E-04
6.0198E-03	6.1985E-05
7.0822E-03	4.8101E-05
8.1445E-03	8.5604E-05
9.9150E-03	8.2631E-05
1.2040E-02	4.4939E-05
1.4873E-02	2.2063E-05
1.6414E-02	-1.1146E-04
2.2663E-02	-1.1531E-04
2.8329E-02	-1.3056E-04
3.5411E-02	-2.0888E-04
4.4972E-02	-2.2550E-04
5.6657E-02	1.1180E-05
7.1884E-02	-8.5099E-05
9.0652E-02	-1.1968E-05
1.1544E-01	-1.0466E-05
1.4660E-01	-8.7107E-05
1.8661E-01	-4.8703E-05
2.3761E-01	-3.2492E-05
3.0276E-01	-3.0811E-05
3.9129E-01	-1.0535E-05
4.9221E-01	1.7899E-05
6.2817E-01	1.6649E-05
8.0135E-01	5.4412E-06

Table F.6-33 Velocity measurements made at S/T = 0.30 with the VW system of the laser anemometer, plane 10

File E600770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 23.4

density (kilograms per meter cubed) = 1.115905

viscosity (meters squared per second) = 1.638807E-05

Atmospheric pressure (Pascals) = 94970

Velocity of undisturbed free stream (Uref, in m/s) = 27.71825

Estimated momentum thickness at X/T = -2.146, Z/T=0 (m) = 4.088957E-03

Estimated momentum thickness Reynolds number = 6915.928

Location of traverse; X/T = 4.4618 Z/T = -.2 (Plane 10, S/T = 0.20)

Y/T	vw/Uref2
2.1246E-03	2.3464E-04
2.8327E-03	1.8477E-04
3.8952E-03	-2.2846E-05
4.9575E-03	1.2588E-05
6.0198E-03	1.1007E-04
7.7904E-03	6.2003E-05
9.9150E-03	1.0434E-04
1.2748E-02	6.2277E-05
1.6289E-02	-1.0571E-04
2.6204E-02	5.0780E-05
3.3286E-02	-5.2902E-05
4.2847E-02	1.0867E-05
5.4533E-02	1.8612E-04
6.9759E-02	8.0606E-05
8.8527E-02	8.4244E-05
1.1331E-01	3.6287E-06
1.4448E-01	-2.7094E-04
1.8520E-01	-2.1566E-04
2.3548E-01	-4.5465E-05
3.0064E-01	-1.3195E-05
3.8385E-01	-1.6073E-05
4.9009E-01	2.7885E-05
6.2606E-01	1.6885E-05
7.9922E-01	1.5123E-05

Table F.6-34 Velocity measurements made at S/T = 0.20 with the VW system of the laser anemometer, plane 10

File E599770.RES

Non-redundant measurements obtained with the VW optical system of the LDV

Flow temperature (degrees centigrade) = 22.2

density (kilograms per meter cubed) = 1.116548

viscosity (meters squared per second) = 1.632746E-05

Atmospheric pressure (Pascals) = 94640

Velocity of undisturbed free stream (Uref, in m/s) = 27.71725

Estimated momentum thickness at $X/T = -2.146$, $Z/T = 0$ (μ) = 4.088986E-03

Estimated momentum thickness Reynolds number = 6941.401

Location of traverse; $X/T = 4.4618$ $Z/T = -.1$ (Plane 10, $S/T = 0.10$)

Y/T	vw/U_{ref}^2
2.8329E-03	5.4407E-05
3.8952E-03	9.8479E-05
4.9575E-03	4.6367E-05
5.6657E-03	-4.8623E-06
6.7280E-03	5.8296E-05
8.4986E-03	4.5432E-05
1.0623E-02	1.4604E-04
1.3454E-02	2.1080E-05
1.6957E-02	-9.2327E-05
2.1246E-02	-2.6644E-05
2.6912E-02	6.5932E-05
3.3994E-02	7.7886E-05
4.3555E-02	2.1453E-04
5.5241E-02	4.1627E-04
7.0467E-02	2.9404E-04
8.9235E-02	1.6842E-04
1.1402E-01	1.5707E-04
1.4518E-01	-3.4952E-04
1.8520E-01	-3.0950E-05
2.3619E-01	-2.7293E-04
3.0135E-01	-4.2973E-04
3.8456E-01	-4.4806E-04
4.9079E-01	-4.0034E-04
6.2677E-01	-2.0310E-04
7.9993E-01	-2.0647E-04

Table F.6-35 Velocity measurements made at $S/T = 0.10$ with the VW system of the laser anemometer, plane 10